

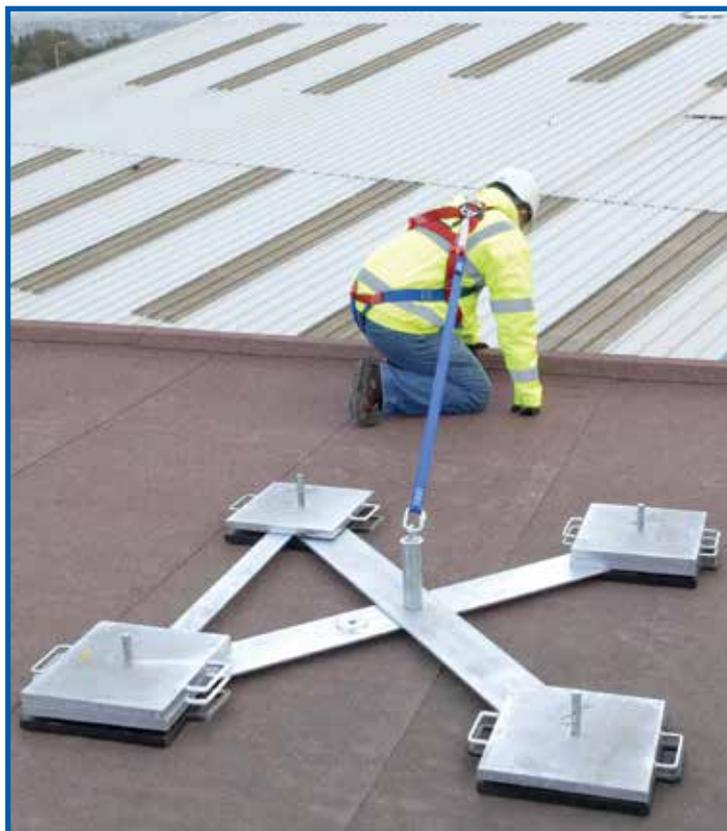


F.H. BRUNDLE
SERVING THE TRADE SINCE 1889

"SAFETY AT THE HIGHEST LEVEL"

THE ROOF ANCHOR SYSTEM

OPERATING INSTRUCTIONS



**TEMPORARY ANCHOR DEVICE CONFORMING TO EN 795 - CLASS E
ISO 14567 CLASS E AND BS 7883 - CLASS E**

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CHAPTER 0

INTRODUCTION

SUMMARY

This chapter is split into the following subjects

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General	4 - 6
Use in accordance with regulations and incorrect use	6
Operator's duty of care	8
Personnel requirements	9

GENERAL

CONTENTS

General information about the Roof Anchor system.

AUTHORISED SELLER

FH Brundle
Lamson Road
Ferry Lane North
Rainham
Essex
RM13 9YY
Tel: 01708 25 35 45
Fax: 01708 25 35 50

APPLICABILITY

These operating instructions apply to the following product:

Type: The Roof Anchor system

COMPATIBILITY

The Roof Anchor system can be used with PPE according to:

- EN354: 2002 (fixed lanyards)
- EN355: 2002 (energy absorbing device)
- EN360: 2002 (retractable): always consult the manufacturer of the PPE to affirm that it can be used in the horizontal configuration and over the edge of any potential drop
- EN361: 2002 (safety harness), subject to strict adherence to the manufacturer's instructions for use
- Guided type fall arrest system to EN353 - 2 and EN358



ATTENTION

CAUTION! As there is the possibility of the system having to arrest a fall, means of dissipating energy (e.g. a device or system to EN355) should be incorporated to keep the maximum impact force to below 6kN. EN355 devices are tested using a 100Kg standard, users who exceed this (including equipment carried) should consult the manufacturer of the energy dissipation system to confirm the suitability of such a product.

HEALTH AND SAFETY

Installers and users must comply with all relevant health and safety regulations. In the UK, particular attention should be drawn to the H.S.E. publication:

INDG 284 - Working on roofs.

UK based installers / users may obtain copies of the above publication - free of charge - from their Health and Safety executive area office.

FAMILIARISATION



WARNING! Before using Roof Anchor for the first time, it is strongly recommended that users familiarise themselves with the product, these instructions, the terms used to describe the various parts and the marking on the product. It is essential that users fully understand these before using Roof Anchor at the worksite.

CERTIFYING & NOTIFYING BODY

Roof Anchor was tested to the requirements of EN795: 1997 Class E and CE approval certification issued by TUV NEL Ltd, Glasgow G75 0QU - Certifying Body Number 0320. The notified body ensuring compliance for EC Marking is Inspec International, Salford M6 6AJ - Notified Body Number 0194.

ANTICIPATED LIFE

Metal components & rubber pads: Up to 25 years in non-marine, non-corrosive (e.g. chemical plant) environments with a temperature range from -10 to +40 degrees centigrade subject to use and inspection strictly in accordance with these instructions.

STORAGE AND COMPONENTS

- These operating instructions form a component part of the Roof Anchor system. They must accompany the system and be followed for use
 - At no time must any pages be removed from these instructions. If the instructions are lost in their entirety or in part, the instructions or the missing parts must be replaced immediately. Please contact your supplier or the manufacturer
-

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We reserve all further rights.

AMENDMENT SERVICE

This document is not subject to any amendment service from the manufacturer. Amendments to this documentation can be carried out without prior notice.

MODIFICATIONS TO THE ROOF ANCHOR SYSTEM

If you undertake modifications to the Roof Anchor system, you will negate all certification that comes with this product! As a result, the declaration of conformity that you have received with the deadweight anchor system will be deemed as null and void.

In this case, you must have all component parts of the system re-assessed for conformity in accordance with the applicable product guidelines and national legislation.

USE IN ACCORDANCE WITH REGULATIONS AND INCORRECT USE

Contents

The use in accordance with regulations and incorrect use are described below.

DEFINITION "AUTHORISED PERSON"

A person is deemed to be an authorised person if they have been authorised to work on or with the Roof Anchor system in accordance with these instructions.

USE IN ACCORDANCE WITH REGULATIONS

The Roof Anchor system is a mobile deadweight anchor system. It is a component part of a personal protection system for the prevention of falls from heights and may be used only in conjunction with the relevant personal protective equipment (Lanyards etc.) - see section 0.2 "Compatibility" - page 4. The user must seek guidance from, and follow the instructions supplied by the manufacturer of such equipment. The Roof Anchor system is deemed to be used in accordance with regulations only when all the following conditions are met.

- For use in fall arrest situations, only one person may be connected to the Roof Anchor system at any time
- Where the combination of the Roof Anchor position and the PPE supplied ensures that no user is able to reach a position within 0.5m of any roof edge, roof opening or other fall hazard (i.e. use as fall restraint only), a maximum of two users may be connected simultaneously.
 - All users must be equipped with a means of ensuring that the forces applied to the body (and therefore to the anchor device) during the arrest of fall does not exceed 6kN. Where the weight of the user, with clothing, personal protective equipment and, if necessary, tools, may exceed 100Kg. When secured to the system, it should be ascertained that the 6kN maximum force will not be exceeded (by reference to the manufacturer of the energy absorber or the force limiting equipment)
- The potential danger that arises when the Roof Anchor system is used in conjunction with fall arrest equipment to EN 360, or energy absorbing devices (to EN355) must be assessed

Important: Read the notes on page 25 - 27

- All component parts must be used for the assembly of the system. The number of weights necessary for the various types of roof surfaces on which the Roof Anchor system may be installed are shown on page 20 - 25. The total number of weights used to assemble the Roof Anchor system must at all times be in accordance with the table on page 20
- No part of the Roof Anchor system is to be placed closer than 2.5m from the edge of a roof or open void or any other fall hazard
- A clearance height of at least 2.5m must remain above the highest component of the system

- The Roof Anchor system is designed only for use on roofs of the types shown on page 20, with a maximum slope of the roof surface of 5°
- The Roof Anchor system may only be used when the supporting base is free from snow and ice. Do not use if there is a risk of frost or in freezing conditions
- Do not position the Roof Anchor system where there is a risk of accumulation of water or where there is contamination of the roof surface and / or any Roof Anchor component by oil, grease or growth of algae
- Use of Roof Anchor in high winds is not permitted
- Ensure that all fragile roof lights in the work area are covered to prevent falls through them

REPEAT:

Only use the Roof Anchor system when all conditions are met! ***YOUR LIFE DEPENDS ON IT!***

INCORRECT USE

The following conditions are classified as incorrect use:

- The use of the Roof Anchor system when one of the conditions listed under "use in accordance with regulations" is not met
- The failure to observe the minimum distances, number of weights and conditions imposed on the supporting base listed in "use in accordance with regulations". The Roof Anchor system may move in the case of the attached person falling. If the listed conditions are not observed, the system may possibly move too much and fall from the roof
- The use of a damaged, incomplete or incorrectly assembled Roof Anchor system
- Use by an operative without prior instruction by a competent, trained person
- Working in the vicinity of fragile roof lights without covering them to prevent falls through them (A purpose made freestanding guardrail solution "Roof Dome" is available for this purpose)

Use of the Roof Anchor system in any of the above conditions is forbidden. If the system is used incorrectly, a fatal fall or severe injuries may occur.

OPERATOR'S DUTY OF CARE

CONTENTS

The duties and obligations of the operator and trained personnel when dealing with the Roof Anchor system are set out below.

SAFETY OF THE ROOF ANCHOR SYSTEM

The operator or trained personnel must ensure that the Roof Anchor system:

- Is used only in accordance with health and safety regulations
 - Is made available for use only in a proper, functional state
 - Is used in accordance with the regulations set out herein
 - Is checked regularly
 - Is used only by qualified, trained and authorised personnel
-

PROTECTION OF PERSONNEL

All persons using the system must ensure that the necessary personal protective equipment:

- Is available for use is used (see compatibility page 4 - 6)
 - Is checked regularly and the check recorded
 - **IMPORTANT!** Wear suitable protective footwear to avoid injury to the feet in case any of the component parts are dropped or fall on them
-

INSTRUCTION AND TRAINING

All users of the system must ensure that:

- Before using the system for the first time and at least once annually thereafter, all personnel shall be instructed in all relevant matters of health and safety at work (with particular emphasis on working at height) and environmental protection
- The operating instructions are always available in a legible state, are complete and are kept with the system at all times
- All users are familiar with the contents of these operating instructions

PERSONNEL REQUIREMENTS

CONTENTS

The requirements the manufacturer places on the users of the Roof Anchor system are as follows:

DUTIES OF THE USER

The user must fulfill the following duties:

- Operate the Roof Anchor system strictly in accordance with these instructions and check that it is functioning correctly and safely
 - Recognise and - as far as possible and permissible - repair any damage to the system, or, if repair is not possible, immediately withdraw the system from use and return the system to the manufacturer for repair
-

REQUIREMENTS OF THE USER

In order to be able to fulfill his or her duties, the user must meet the following requirements:

- They must have received instruction from a trained operator of the system
 - They must have adequate knowledge of the English language to understand these operating instructions
 - They must be free from any disability that may affect their ability to use this system or understand these instructions
 - It is unlikely that any medical condition may directly affect (or be affected by) the use of this product in itself, but users must be aware that:
 - Working at height is a dangerous occupation. They should be trained to do so, and should comply with any medical requirements set by the training provider
 - The manufacturer or supplier of PPE to be used with this product may impose medical requirements on users of their products, which must be complied with
-

DEFINITION "TRAINED PERSON"

Trained persons, are persons who, based on their specialist training and experience have adequate knowledge of the system to be checked and are sufficiently familiar with the relevant regulations, guidelines and generally recognised rules of the Roof Anchor system and accompanying regulations - e.g. Health and Safety Regulations and Accident Prevention Regulations that are in force in the country of use; and can assess the safe working conditions of the installation location.

A trained person shall be responsible for selecting all users of the Roof Anchor system.

CHAPTER 1

FOR YOUR SAFETY

1.1 SUMMARY

- **IMPORTANT INFORMATION!**

- The following safety information is to be understood as being in addition to any existing Health and Safety Regulations and laws already in force
- Existing accident prevention regulations and laws must be observed in all cases

SUMMARY

This chapter is split into the following subjects:

Subject	Page
Symbols	11
Basic safety instructions	12

1.2 SYMBOLS

CONTENTS

An explanation of the symbols used follows:



DANGER!

This symbol indicates that there is a risk to the life and safety of people.

Where life is endangered, the wording "**DANGER TO LIFE**" shall be indicated separately.



ATTENTION!

This symbol indicates that there is a threat of damage to goods or the environment.



ADVICE!

This symbol identifies information that contributes to the better understanding of the Roof Anchor system.

1.3 BASIC SAFETY INSTRUCTIONS

CONTENTS

Basic safety instructions for the safe handling of the Roof Anchor system can be found here.



DANGER!

It is imperative that you follow these safety instructions to avoid endangering your life and safety:

Possible Danger	Measures for Avoidance
<p>Danger to Life! Risk of the user falling as a result of incorrect use.</p> <p>Explanation: Falls resulting in death or severe injuries can result from the incorrect use of the Roof Anchor system.</p>	<ul style="list-style-type: none"> • Use the Roof Anchor system only as described in the operating instructions • Before use, check all components and connector parts for correct positioning • Ensure that the correct number of weights for the type of roof surface (see page 20 - 25) has been used • Check for any damaged parts
<p>Danger to Life! Danger of the user falling as the result of an inappropriate installation site.</p> <p>Explanation: An inadequate supporting base or assembly on a type of roof surface not approved for use with this product (see page 20 - 25) can lead to the Roof Anchor system either slipping or falling - particularly if the user falls.</p>	<ul style="list-style-type: none"> • Pay attention to the detailed instructions concerning the installation site, assembly and use of the Roof Anchor system in chapter 2 of these user instructions • The supporting base must always have the specified characteristics and load-bearing capacity • The specified masses and number of weights must be observed in all cases • A risk assessment of the workplace must be carried out before use in all cases
<p>Danger to Life! Danger of the user falling as a result of defective or inadequate maintenance.</p> <p>Explanation: Defects or damage relevant to safety can adversely affect the functionality of the Roof Anchor system. In these circumstances the safe functioning of the system is not assured.</p>	<ul style="list-style-type: none"> • Before use, check Roof Anchor for damage • Damaged parts must be replaced before use in all cases. Only after this may the Roof Anchor system be used • In case of doubt change the equipment • In case of a fall change the equipment

CHAPTER 2

USING THE ROOF ANCHOR SYSTEM

SUMMARY

This chapter is split into the following subjects:

Subject	Page
Transporting and storing the Roof Anchor system	14
Checking the component parts	15 - 19
Selecting the installation site	20 & 21
Number of weights & positioning the Roof Anchor	22
Establishing fall arrest distance	23 & 24
Using the Roof Anchor system	25 & 26
Maintenance, inspection and disposal	27 - 31
Labels	31 & 32

TRANSPORTING AND STORING THE ROOF ANCHOR SYSTEM

CONTENTS

Instructions for the safe transportation of the Roof Anchor system.



DANGER!

Pack, store and transport Roof Anchor so that the rubber bases and the eye for connecting the safety harness cannot be damaged.

PACKING

We recommend the component parts are packed in a wooden crate or shrunk wrapped onto a pallet for transportation. In case of transport by sea, the packaging must be impervious to seawater.

TRANSPORTATION

There are no restrictions to the means of transport.

STORAGE

Longer-term storage must be under cover for protection against the weather.

All component parts must be stored on a flat surface to minimise any potential risk of damage.

CHECKING THE COMPONENT PARTS

CONTENTS

The following is a review of all parts needed for the correct assembly of the Roof Anchor system.

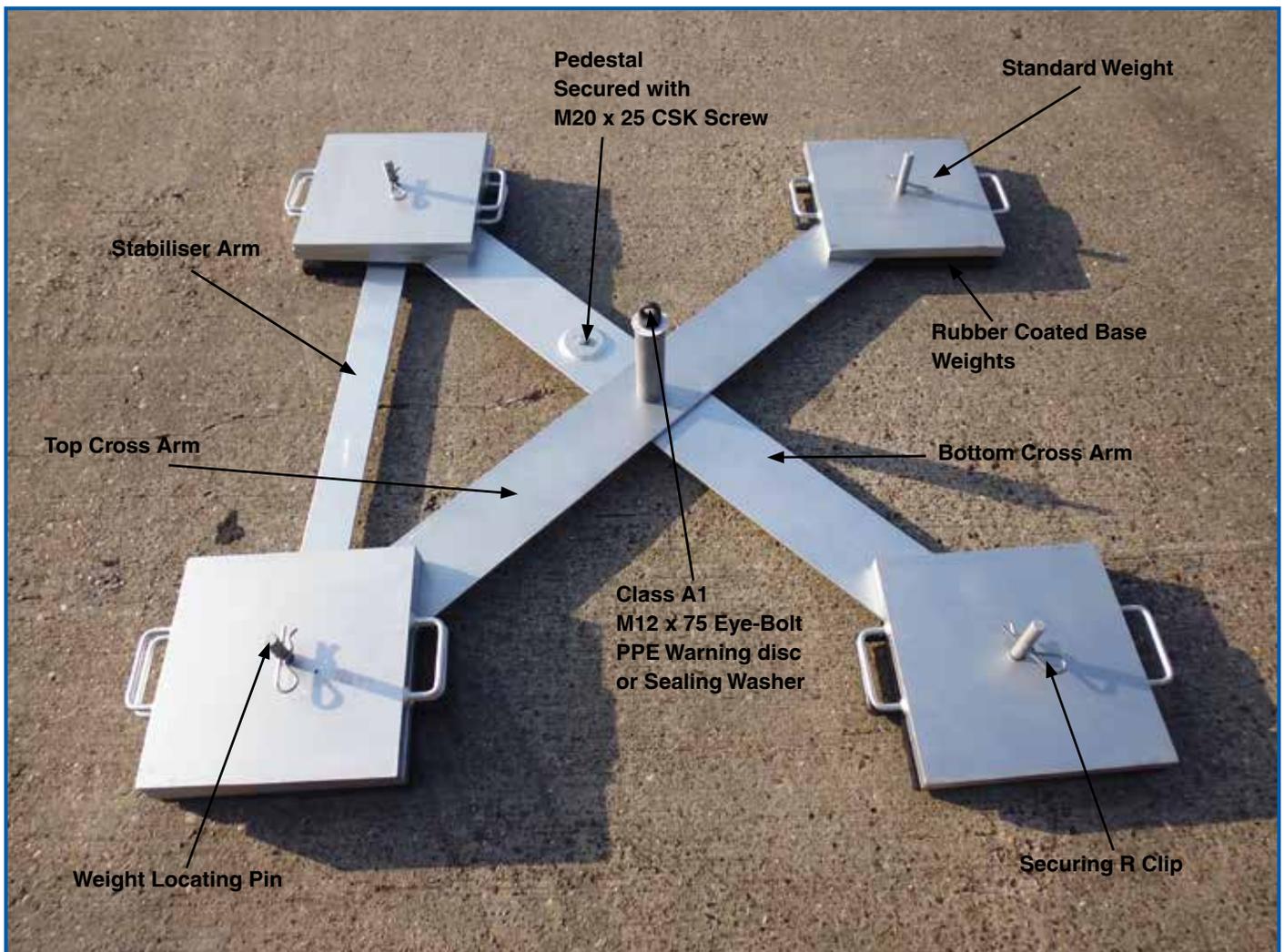


DANGER!

If all the parts shown in figure 1 are not present or if parts are damaged, they must be replaced by original parts. Contact your supplier or the manufacturer for advice.

NAMES AND FUNCTIONS OF THE NECESSARY COMPONENT PARTS

Figure 1



THE COMPONENT PARTS DEPICTED PREVIOUSLY HAVE THE FOLLOWING NAMES AND FUNCTIONS:

Item	Name	Function	Quantity
	Weight Locating Pin	<ul style="list-style-type: none"> • Locates the position of the standard weights • The locating pins screw into the central tapped hole of each rubber coated base weight • Four drilled holes are provided at the top (unthreaded) end of the pin. Insert the securing pin into the lowest possible hole according to the number of weights being used • Total weight of 4 weight locating pins = 1.30Kg 	4 pieces
	Rubber Coated Base Weights	<ul style="list-style-type: none"> • Base plates to provide maximum friction and / or adhesion with the roof surface • It is important that the rubber coated base weights are installed with the suction cups facing down, in direct contact with the surface • It is important that the rubber suction cups are maintained undamaged and free from contaminations such as oil, grease or algae • Each rubber coated base weight has a central tapped hole to accept the weight locating pin • Total weight of 4 rubber coated base weights = 68Kg 	4 pieces
	Polythene Washer	<ul style="list-style-type: none"> • Positioned between the warning disc and the pedestal 	1 piece
	Bottom Cross Arms	<ul style="list-style-type: none"> • To attach the base weights Length = 1600mm • Bottom cross arm has a threaded spreader plate to accept the pedestal fixing bolt • The weight of the bottom cross arm is 16Kg 	1 piece

THE COMPONENT PARTS DEPICTED PREVIOUSLY HAVE THE FOLLOWING NAMES AND FUNCTIONS:

Item	Name	Function	Quantity
	Zinc plated socket screw	<ul style="list-style-type: none"> • Used to attach the central pedestal to the cross arm assembly • The socket screw is screwed through the bottom cross arm such that it passes through the spreader plate before passing through the bottom cross arm, and such that the countersunk head of the socket screw seats into the countersunk section of the spreader plate • Weight of 1 socket screw is 0.2Kg 	1 piece
	Top Cross Arm	<ul style="list-style-type: none"> • To attach the base weights Length = 1600mm Top cross arm does not have a threaded spreader plate to accept the pedestal fixing bolt • The weight of the top cross arm is 15Kg 	1 piece
	PPE Warning Disc - Fall Arrest	<ul style="list-style-type: none"> • Disc to provide information on use and date of test • Positioned under the eye-bolt and above the polythene washer 	1 piece
	PPE Warning Disc - Restraint	<ul style="list-style-type: none"> • Disc to provide information on use and date of test • Positioned under the eye-bolts on central pedestal secondary fixing location on cross arm and above the polythene washer 	2 pieces
	Central Pedestal	<ul style="list-style-type: none"> • The central pedestal provides a raised position for the attachment point, thus increasing the performance of the system • The lower end of the central pedestal has an M20 threaded hole to accept the socket screw • The upper end of the pedestal has an M12 tapped hole to accept the class A1 eye-bolt used as the attachment point • Weight of central pedestal = 2.5Kg 	1 piece

THE COMPONENT PARTS DEPICTED PREVIOUSLY HAVE THE FOLLOWING NAMES AND FUNCTIONS:

Item	Name	Function	Quantity
16DWA1012	Standard Weights	<ul style="list-style-type: none"> • The standard weights are galvanised and have a bright silver appearance. They should not be confused with the base weights which are rubber coated and black in appearance • The central hole of the standard weights is unthreaded, and designed to accept the unthreaded portion of the weight locating pin • Either six, eight or twelve standard weights are required to assemble a Roof Anchor (R) system, depending on the type of roof surface. It is imperative that the correct number of standard weights is employed. See page 22 <ul style="list-style-type: none"> • Total weight of 4 standard weights = 100Kg • Total weight of 6 standard weights = 150Kg 	6, 8 or 12 pieces
	Class 'A1' Anchor Device (M12 Eye-bolt)	<ul style="list-style-type: none"> • An M12 threaded eye-bolt, screwed into the top of the central pedestal to which the user's personal protection system (e.g. lanyard) must be attached • Weight of 1 M12 class A1 anchor device = 0.2Kg 	1 piece
	Securing Pins ('R' clips)	<ul style="list-style-type: none"> • 'R' clip type securing pins used to prevent accidental release of the standard weights from the weight locating pins • The securing pins are fitted after all necessary standard weights have been fitted (see section page 22) • Fit the securing pins into the first visible hole of the weight locating pin nearest to the top standard weight • Weight of 4 securing pins = 0.15Kg 	4 pieces

THE COMPONENT PARTS DEPICTED PREVIOUSLY HAVE THE FOLLOWING NAMES AND FUNCTIONS:

Item	Name	Function	Quantity
	Tommy Bar	<ul style="list-style-type: none"> • For use when tightening the eye-bolt into the pedestal • The length and diameter of the tommy bar is specially designed to apply the correct force when tightening the eye-bolt • The tommy bar should only be used with the eye-bolt centrally positioned and with one hand turning each end • Never use the tommy bar with one eye-bolt positioned at one end as this would result in too much force being applied which could damage the eye-bolt • Weight of 1 tommy bar = 0.35Kg 	
	Label regarding the type of roof surfaces	<ul style="list-style-type: none"> • Warning label 	1 piece
	Label regarding correct use	<ul style="list-style-type: none"> • Warning label 	1 piece
	Stabiliser Arm	<ul style="list-style-type: none"> • To attach the base weights Length = 1100mm Placed on top of adjacent rubber coated base weights prior to fitting top and bottom cross arms 	1 piece
	Class 'A1' Anchor Device (M12 Eye-bolt)	<ul style="list-style-type: none"> • An M12 threaded eye-bolt, screwed into the secondary fixing location on the cross arm to which the second user's personal protection system (e.g. lanyard) must be attached for restraint only • Weight of 1 M12 class A1 anchor device = 0.2Kg 	1 piece

SELECTING THE INSTALLATION SITE

CONTENTS

Requirements of the installation site.



DANGER!

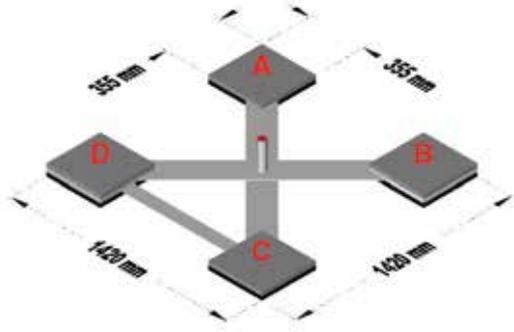
The installation site can affect the safe functioning of the Roof Anchor system. If the requirements of the installation site are not met, do not use the system. If you are unsure of the load-bearing capacity of the roof, contact a structural engineer before installing the system.

REQUIREMENTS OF THE INSTALLATION SITE

The installation site must meet the following requirements:

Criterion	Requirement
Shape of roof	<ul style="list-style-type: none">• Only for use on flat roofs
Permitted roof slope	<ul style="list-style-type: none">• Max. 5°
Roof surface	<ul style="list-style-type: none">• For use on mineral felt, concrete, profiled metal sheets, asphalt, stone chippings and single ply membrane• The roof surface must be free from loose debris, oil, grease and algae• Where the system is to be used on a roof that is covered with stone chippings, all loose stones shall be removed (e.g. swept with a hard brush) from the area where the system will sit and for a distance of 2.5m in each direction in which it may travel when arresting a fall before assembly of the system
Meteorological conditions	<ul style="list-style-type: none">• The roof must be free from snow and ice• If, during use, there is a risk of freezing conditions or if it starts to snow, the Roof Anchor system may not be used• The Roof Anchor system may not be used in conditions of high winds
Safety distances	<ul style="list-style-type: none">• All parts of the system must be at least 2.5m from a roof edge or open void• A clearance height of at least 250mm must remain above the highest component of the system• The clearance height below the feet of the user to the first obstacle in the path of a potential fall must be at least that required by any P.P.E. used in conjunction with the Roof Anchor system, plus 1m to allow for potential movement of the system itself

Weight of systems



Six weight version = 250Kg distributed thus:

- A = 50Kg, B = 75Kg, C = 50Kg, D = 75Kg

Eight weight version = 300Kg distributed thus:

- A = 75Kg, B = 75Kg, C = 75Kg, D = 75Kg

Twelve weight version = 400Kg distributed thus:

- A = 100Kg, B = 100Kg, C = 100Kg, D = 100Kg

NUMBER OF WEIGHTS

Roof Anchor is supplied as standard with four rubber-coated base weights and either six, eight or twelve galvanised standard weights according to the type of roof surface. In the table below, the number of weights referred to is in addition to the four rubber-coated base weights.

Weights required on various roof surfaces	
Single Ply Membrane:	
a) Smooth flat surfaces	8
b) Embossed surfaces	12
Steel Cladding:	
Flat or downhill (max 5°)	8
Stone Chipping:	
On a bitumen base	6
On a mastic base	8
<i>All loose stones to be brushed</i>	
Mineral Felt	6
Asphalt	6
Concrete	6

See page 18 for standard galvanised weight **code 16DWA1012**

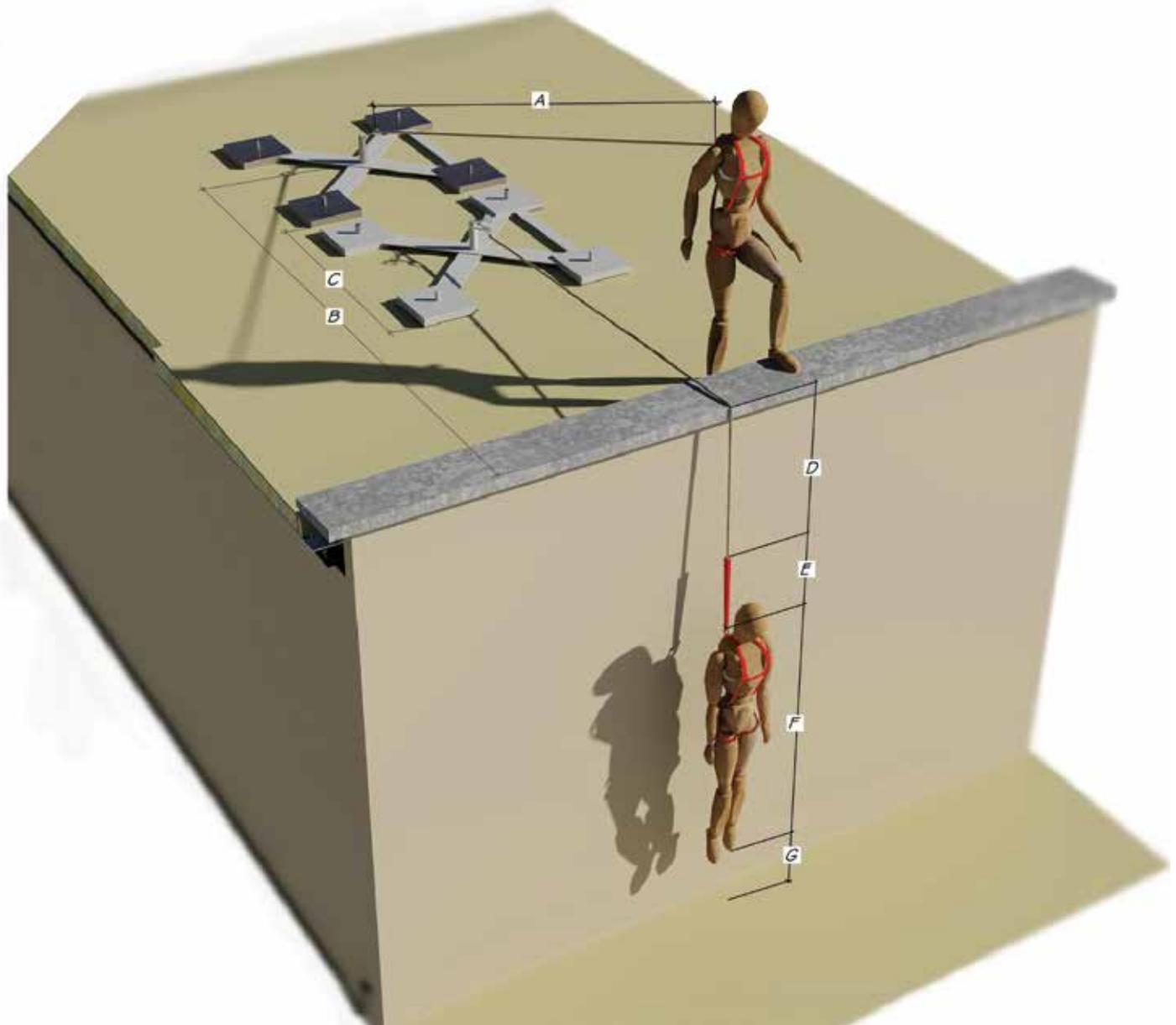
POSITIONING OF ROOF ANCHOR ON THE ROOF

WARNING! Establish that the roof surface is of an appropriate type (see page 20 - 25)

Select a suitable position on the (flat) roof for assembly of Roof Anchor. No part of the Roof Anchor may be less than 2.5m from the roof edge or other opening. At no time should an installer work within 2m of such an edge or opening unless he / she is protected by a suitable fall protection system.

The path of any falling body must allow sufficient ground clearance, free from obstacles, allowing that the device may move 1m before arresting the fall (see page 24).

ESTABLISHING FALL ARREST CLEARANCE DISTANCE



Where:

A = Max length of line from Roof Anchor to harness attachment

B = Distance from line attachment on Roof Anchor to outer edge of parapet

C = Maximum potential movement of Roof Anchor (1m)

$D = A - B + C$

E = Maximum extension length of energy absorber (whether integral with the lanyard or not), consult relevant manufacturer

F = Stretch distance of harness and body of person (allow minimum 2m)

G = Clearance allowance of 1m

NB. Where a rope-adjuster is used, the distance D will be increased by any slack allowed in the rope and by any travel in the device during the fall. The manufacturer of any such device must be consulted for the determination of this additional allowance.

NB. Similarly, where a retractable type fall arrester is used, there may be some extension of the life line before the brake operates, thereby also increasing distance D. The manufacturer of any such device must be consulted for the determination of this additional allowance.

Manufacturers of these devices should also be consulted as to their suitability for horizontal 'over edge' operation, as not all types are acceptable.

The clearance distance then = $D + E + F + G = A + C + E + F + G - B$

and since $C = 1\text{m}$, $F = 2\text{m}$ & $G = 1\text{m}$ then:

Minimum clearance distance = $A - B + E + 4\text{m}^*$

"*" additional distance allowance may need to be made for some components see NB. above.

WARNING! If the roof surface is stone chippings, ensure that all loose chippings are removed from the area where the Roof Anchor will sit, and the area across which it could travel in the event of a fall arrest incurring high forces. This may be achieved by sweeping the area with a hard broom (See section page 20).

WARNING! Do not assemble Roof Anchor:

- Where water accumulates. Otherwise, wet conditions are acceptable
- Where there is frost, ice or snow (or if these conditions are imminent)
- If the roof or the rubber-coated base weights are contaminated by oil, grease or other lubricant
- If there is growth of algae on the rubber-coated base weights or in the area immediately adjacent to them
- If there are loose chippings on the roof surface

DISMANTLING THE ROOF ANCHOR SYSTEM

When you wish to dismantle the Roof Anchor system reverse the sequence specified in the assembly instructions. Should the system need to be moved the base weights must be removed beforehand. Under no circumstances should the system be moved with the base weights attached.

USING THE ROOF ANCHOR SYSTEM

CONTENTS

How to use the system correctly.



DANGER!

Do not use the Roof Anchor system if defects are identified during the checks described below or doubts exist over the integrity of the system. Defects can endanger life! Users of the system should be free from any disability that may affect them working at height in accordance with all relevant Health and Safety Regulations.

ALWAYS MAKE THE FOLLOWING CHECKS BEFORE USING THE SYSTEM!

Always carry out a check of the Roof Anchor system before use.

The check must include the following items:

- No part of the system is placed within 2.5m of a roof edge, open void or other fall hazard
- Ensure that, in case of a fall, your fall will be unobstructed. It is essential that you pay attention to the length of your personal protective equipment, including any energy absorber when fully extracted, and add one metre to allow for potential movement of the system itself. Always ensure there is adequate ground clearance at all times! Also ensure that in the case of a fall resulting in a pendulum swing, your swing will be unobstructed in all aspects
- All base weights must be placed directly on the roof surface, evenly and without a gap between them and the supporting base. It is imperative that the rubber suction cups face downwards, and are in contact with the roof surface
- Ensure that the correct number of weights have been used for the type of roof surface (see page 22) and that they are correctly distributed across the six securing pins (Fig.1 page 15)
- Ensure that securing pins have been fitted to each location pin, thus preventing accidental removal of standard weights.
- Ensure that the roof is flat and that the slope is no more than 5°
- Ensure that the means of connection (lanyard etc.) is not in contact with any sharp edges
- Ensure the surface of the roof is free from oil, algae, ice, snow and standing water
- Ensure the roof is structurally sound and shows no signs of damage
- Ensure the Roof Anchor system shows no sign of damage or defects
- Ensure all screw threads are tightened firmly and the eye-bolt torque using the tommy bar provided
- Ensure the central attachment point of the Roof Anchor system is secure
- A warning notice should be placed on the central eye-bolt so that no one disconnects the personal protective equipment during use. This is the responsibility of the operator
- Ensure you have observed all the instructions for use of the personal protective equipment used in conjunction with the Roof Anchor system

EXCLUSION ZONE

It is first necessary to establish an exclusion zone between Roof Anchor and the roof edge, into which no one should be allowed unless connected to Roof Anchor (or other appropriate anchor, if one exists). The exclusion zone should be designated by some form of marking or barrier.

ALWAYS MAKE THE FOLLOWING CHECKS!

ALWAYS ENSURE!

Each inspection must be recorded in an inspection book!

You will find a sample page at the end of these operating instructions.

SELECTION OF SUITABLE PERSONAL PROTECTIVE EQUIPMENT



ADVICE!

The selection of suitable personal protective equipment (PPE) can only take place based on a risk assessment, which has been carried out in advance. The risk assessment and the selection of the PPE must be documented in writing!

ADVICE

Personal protective equipment (lanyard etc.) is not included with the Roof Anchor system. Personal protective equipment formed no part of the tests carried out by the National Engineering Laboratory. Please ask your supplier for help in selecting the personal protective equipment suitable for you. The manufacturer of the chosen PPE must affirm that it can be used in the horizontal configuration and over the edge of any potential drop.

The personal protective equipment selected for protection against a fall must consist of the following parts:

- A full body harness in accordance with EN361 is the only acceptable body holding device. A safety belt in accordance with EN358 is not suitable as a safety device
- A connector between the safety harness and the Roof Anchor system in accordance with EN362
- Make sure that the personal protective equipment is suitable as a full fall arrest system. Consult the manufacturer if necessary
- During use ensure all PPE is protected from exposure to thermal electrical and mechanical shock or chemical attack
- An emergency plan is in place for the recovery of any person who may fall

CONNECTING PERSONNEL TO THE ROOF ANCHOR SYSTEM



DANGER!

The Roof Anchor combination is intended for single person use for fall arrest purposes. In the case of use for restraint, it will accommodate two persons plus equipment, provided that the combination of the position of the Roof Anchor and the provision of a fixed length lanyard precludes either person from approaching within 0.5m of the roof edge.

CONNECTING THE ROOF ANCHOR

All personal protection equipment must be connected exclusively with the connector elements approved for the purpose to the eye-bolt on the central pedestal (see figs.1 and 2). No other form of fastening, e.g. to the cross arms, stabilisers (or to the tapped holes in the cross arms) or by knots is permitted as life may be endangered.

FINAL CHECKS

After you have connected, ensure:

- All connector elements of the personal safety equipment (e.g. karabiner hooks) are correctly closed and locked
- The connecting elements of the personal protective equipment move freely in the eye of the central attachment point
- No load will be applied across the safety catches of any karabiners or other connectors

MAINTENANCE, INSPECTION AND DISPOSAL

CONTENTS

Information on the care and regular inspection of the Roof Anchor system, to be carried out by a competent person who is familiar with the product.

RE-SELLING

Should the Roof Anchor system be re-sold or exported outside of the original country of destination, the re-seller shall provide the user with these instructions in the language of the country in which the product is to be used.

CLEANING

In most cases cleaning with clean water is adequate. You can use a water hose or high-pressure cleaner for this purpose. If you are unsure of the nature of any contamination contact the manufacturer for advice. After cleaning or when the system has become wet through use, the system must be allowed to air dry naturally and be kept away from direct heat before next use.

MAINTENANCE

The Roof Anchor system is virtually maintenance free. However, any damage or corroded components and damaged bolts must be exchanged for original spare parts before using again.

REGULAR OBLIGATORY INSPECTION OF ROOF ANCHOR

GENERAL

WARNING! The safety of users depends on upon the continued efficiency and durability of their equipment. It is recognised that checks, inspections and examinations are a contributory factor in reducing risks. It is essential, therefore, that these inspections and examinations are carried out as recommended, and as required by national regulations.

Pre-use checks, inspections and examinations should only be carried out by persons competent to do so. A competent person is defined as a designated person who is knowledgeable of the current checking, inspection and examination requirements, recommendations and instructions issued by the manufacturer applicable to the relevant component, subsystem or system. This person should be capable of identifying defects, should be responsible for initiating the corrective action to be taken and should have the necessary skills and resources to do so.

Once in place at the worksite, the Roof Anchor combination should be checked before each use (pre-use check - see *below*) to ensure that the whole system functions correctly.

After every week of constant use, every six weeks of intermittent use and on each occasion of re-assembly, before they are used again, Roof Anchor should be more closely inspected, e.g. for signs of damage, to ensure that it is safe for re-use. This inspection (i.e. *interim inspection*) should be recorded.

At least every 12 months there should be a thorough examination (i.e. detailed inspection, more thorough than the interim inspection). This thorough examination should be recorded on the inspection sheet attached.

PRE-USE CHECKS

Before each use of this equipment, including after initial assembly, carry out a pre-use check to ensure that it is in acceptable condition and that it operates correctly. This check should include at least the points below:

Make a final inspection of the assembled Roof Anchor. Ensure that all the instructions for their assembly and location have been followed. Special attention should be paid to the following:

- (a) That no part of the Roof Anchor is positioned less than 2.5m from the roof edge or other opening and that no change has occurred to the available clear fall distance
- (b) That the patterned surfaces of the rubber coated base weights are on the underside, in contact with the roof surface
- (c) That the correct number of weights have been used in the correct configuration, i.e. their position on the locating pins
- (d) That the roof surface is of an appropriate type and angle and that the surface conditions are satisfactory
- (e) That the securing pins have been fitted to each locating pin to ensure that the weights are captive
- (f) That the eye-bolt / pedestal assembly has been tightened in accordance with the instructions
- (g) That the PPE warning disc has been fitted between the eye-bolt and the pedestal
- (h) That two instruction labels are attached to the upper cross arm of Roof Anchor, and that they are legible. Replacements are available from your Roof Anchor supplier
- (i) That there is no damage or defect to the Roof Anchor
- (j) That any recommendations for use with other components in the system, as advised on the record card are complied with
- (k) That there is no damage to the roof surface upon which the Roof Anchor stands
- (l) That neither the roof surface nor the Roof Anchor have been contaminated by oil, grease or any other substance
- (m) That there is no growth of algae on the rubber base weights or on the surrounding roof surface. If algae are present on, or immediately adjacent to the rubber base weights, the assembly should be dismantled, scrupulously cleaned, and re-assembled in accordance with this document
- (n) That any loose chippings have been removed where necessary

WARNING! The lanyard must only be attached to the eye-bolt provided on the Roof Anchor pedestal. It would be dangerous to attach the lanyard to any other part of the Roof Anchor.

The assembly of the Roof Anchor is now complete.

WARNING! Should any doubt arise about the safety of any part of the system, do not use it and remove it from service immediately.

INSTRUCTIONS FOR PERIODIC EXAMINATION

GENERAL

In the UK, the Roof Anchor is subject to the Personal Protective Equipment at Work Regulations 1992 and amendments and employers should be knowledgeable of this.

WHAT TO LOOK FOR DURING, INSPECTIONS AND THROUGH EXAMINATION

The lists below are not exclusive.

INSPECTION (INTERIM INSPECTION)

An inspection should be carried out after every week of constant use, every six weeks of intermittent use and on each occasion of re-assembly, and recorded. In addition to the pre-use checks. Inspect for the following:

- (a) For signs of corrosion, wear, distortion or other defects on all parts including bolts and nuts
- (b) That the rubber on the base weights is fully bonded to the steel and that there is no damage to the suction cups. Any algae should be removed from the rubber base
- (c) That the two warning notices are still intact and legible on the top cross arm (replacement notices are available from your Roof Anchor supplier)
- (d) Unless stored out of use, re-assemble in accordance with section 2.5 of this document
- (e) Should any doubt arise about the safety of any part of the system, do not use it, remove it from service immediately, and seek advice from your Roof Anchor supplier

THOROUGH EXAMINATION (DETAILED INSPECTION)

A thorough examination should be carried out and recorded on the inspection record by a competent person, authorised by the manufacturers approved agent, at least every 12 months.

Ensure that Roof Anchor is completely dismantled and inspect as follows:

All checks as per interim inspection.

In addition;

- (a) There is no wear or distortion of the holes through which the various bolts and pins are passed
- (b) That there is no deformation of any of the pins or bolts, or of their threads
- (c) That there is no other evidence to suggest the Roof Anchor has arrested a fall. This might be; scrape marks across the roof, or deformation of the pedestal, cross arms, stabilisers, eye-bolt etc. This list is not exclusive

Should any doubt arise about the safety of any part of the system, do not use it, remove it from service immediately and seek advice from your Roof Anchor supplier.

INSTRUCTIONS FOR REPAIR; FOLLOWING A FALL OR ANY OTHER POSSIBLY DAMAGING EVENT

If an operative suffers a fall from a height while using the Roof Anchor, or if it becomes damaged in any way, the manufacturer should be contacted and arrangements made to return it to them for inspection and any necessary repair.

WARNING! Do not attempt to repair Roof Anchor unless written permission has been obtained from the manufacturer or authorised representative.

RECORDS

It is strongly recommended that a record be kept for each Roof Anchor. The record should contain headings for and spaces to allow entry of at least the details shown in the appendix (see page 33)

MARKINGS ON THE PRODUCT AND THEIR MEANING

Various markings can be found on Roof Anchor, these are located on the top cross arm and on the galvanised weights. These markings are as follows, any queries about their interpretation should be addressed to the manufacturer.

LABEL 1

CE0194

"CE0194" confirms that this deadweight anchor system has been CE approved to the PPE directive and that it is subject to ongoing monitoring under arrangements monitored by notified body no 0194 (Inspec International)

LABEL 2

Roof Anchor may only be used on the following surfaces. The assembly must always comprise of four rubber covered base weights, plus additional galvanised weights depending on the type of roof surface as follows:

- 1) Single ply membrane
 - a) Smooth flat surfaces - 8 galvanised weights
 - b) Embossed surfaces - 12 galvanised weights
- 2) Steel cladding - 8 galvanised weights
- 3) Stone chippings (bitumen) - 6 galvanised weights
Stone chippings (mastic) - 8 galvanised weights
(All loose stones to be brushed)
- 4) Mineral felt - 6 galvanised weights
- 5) Asphalt - 6 galvanised weights
- 6) Concrete - 6 galvanised weights

EN795:1997 Class E

DWA101 / 9

10 / 99

LABEL 3

Roof Anchor is a deadweight anchor device to EN795:1997 - class 'E'

Roof Anchor should never be used during periods when there is frost, ice or snow on the roof.

Roof Anchor should not be used to support horizontal lines or for abseiling.

All users must be fully conversant with the instructions for use supplied with this anchor device.

Number of users

A) For fall arrest purposes - Max one user at any one time

B) For restraint - Providing that the combination of the position of the Roof Anchor and the use of fixed length harnesses ensure that the users are not able to approach within 0.5m of a roof edge or other opening - Max two users

All users should be protected by an energy absorber to EN355

Roof Anchor should be positioned with no part of the assembly less than 2.5m from any roof edge or roof opening. There must always be sufficient clearance to arrest a falling person, see instructions for use. The path of a falling person must be free from obstacles (e.g. canopies).

EN795:1997 Class E

Manufacturers Serial No. 2086

DISPOSAL

The Roof Anchor system consists predominantly of ferrous metals protected with zinc rich coatings - with the exception of the rubber coated base weights.

- The system can, therefore, be disposed of in a scrap-metal facility

Southampton

Rainham

Ilkeston

Birmingham

Haydock

Edinburgh

Glasgow

Tel: 023 8070 3333
Fax: 023 8070 5555

Tel: 01708 25 35 45
Fax: 01708 25 35 50

Tel: 0115 930 2070
Fax: 0115 951 2455

Tel: 0121 565 8282
Fax: 0121 565 8292

Tel: 01942 86 88 88
Fax: 01942 86 88 99

Tel: 0131 335 5999
Fax: 0131 335 5911

Tel: 0141 332 3231
Fax: 0141 332 7325



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INSPECTION AND RESULT OF THE REGULAR OBLIGATORY INSPECTION OF ROOF ANCHOR

Date	Inspector Name / Qualification	Inspection Result	Subsequent Inspection in the Case of Deficiency (Date)	Result of the Subsequent Inspection	Signature of the Inspector	Next Inspection Due