

CERTIFICATE OF CONFORMITY N° 18.0154/A

1. Applicant

Applicant: Mr Erturk Ergenekon Manufacturer: KAYA YAPI İÇ MİM. TAS. İNŞ. TAAH. SAN. ve TİC. A.Ş. - G.O.S.B 1000. Sokak No:1015 41480 ÇAYIROVA – KOCAELI – Turkey

8mm

2. Equipment

Type of equipment: anchor device Type C EN 795:2012 and CEN/TS 16415:2013 Manufacturer and Trademark: **KAYA SAFETY** Model: **K-2010 A**

3. Description

		Ma	<u>iin ch</u>	ara	cteris	tics
~			1		-	

- Span: single and multi, min. 5 m and max. 25 m
- User: 8 people
 Cable tension: 40
- Cable tension: 100 daN
- Direction of use: ceiling, wall and floor
- Turn: 90° internal and external
- Angle of use: max. 15°
- Energy absorber: at each end
- This device has no : joint, entry/exit line fitting, flexible support fixed on anchor, no metallic material without evidence of durability
- This device can be used with following EN 360: IKAR HPS-12 and IKAR H-18
- This device cannot be used with EN 353-2

Mobile anchor with 1 connector: Direction use: wall and floor Direction use: ceiling

Tensioner block

Intermediate anchor

Components

stainless steel AISI 316, 7x19 Ø

• Flexible anchor: wire rope in

- Tensionner indicator
- Turn

Energy absober

Terminal anchor

Turn for ceiling use

4. Technical referential

The Anchor device Type C was assessed taking into account the provisions of technical specification TS 16415:2013 on anchor device type conforms to EN 795 of July 2012 to the exclusion of any other standard.

5. Conclusion

The Anchor device Type C, of trademark **"KAYA SAFETY**" and model **"K-2010 A**", presented by KAYA, conforms to the requirements of the EN 795:2012 and CEN/TS 16415:2013.

26/04/2018 The PPE Technical Manager

References

LL-200 A

Kit EA-200 AT ANB-100 A

SRY-50 + K-14

Kit EA-200 AT

ARB-100C1

ARB-100C2

IND-100

SRY-200 + K-14

ARB-100 A

CENGL' Validation électronique

This certificate includes one page. No duplicate will be issued.

This type of equipment is not a Personal Protective Equipment against falls from height, the present certificate of conformity is not an EC type examination certificate delivered by a notified body.

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> KAYA YAPI İÇ MİM. TAS. İNŞ. TAAH. SAN. ve TİC. A.Ş. G.O.S.B 1000. Sokak No:1015 41480 Çayırova KOCAELI Türkiye

ASSESSMENT REPORT OF CONFORMITY IN REFERENCE OF THE EUROPEAN STANDARD EN795 OF JULY 2012

P.P.E. against falls from a height

Report n°

17.0186

Technical referential

EN 795:2012, CEN/TS 16415:2013

Type of Equipment

Anchor device - Type C

Trade Mark

KAYA SAFETY

Reference

K-2010 A

Fontaine, 27/02/2018 Report sent for the attention of Mr Erturk Ergenekon to the email address erturkergenekon@kayagrubu.com.tr This report includes: 29 pages

PPE Technical Manager

Document original immatériel



Summary

- 1. Introduction Description of the service
- 2. Use of the report
- 3. Identification of the equipment
- 4. Conditions for use of the equipment
- 5. Reference specifications
- 6. Description of the equipment
- 7. Examination report
- 8. Conclusion



1. Introduction - Description of the service

This report concerns an anchor device type C, as defined in § 3.2.3 of European standard "Anchor devices" EN 795:2012 and in § 3.2.3 of Technical Specification "Anchor devices - Recommendations for anchor devices for use by more than one person simultaneously" CEN/TS 16415:2013.

The examination was conducted in accordance with purchase order placed by: KAYA YAPI \dot{I} C MİM. TAS. INŞ. TAAH. SAN. ve TİC. A.Ş

Company: KAYA YAPI İÇ MİM. TAS. İNŞ. TAAH. SAN. ve TİC. A.Ş. - G.O.S.B 1000. Sokak No:1015 41480 Çayırova – KOCAELI - Turkey

2. Use of the report

This report only concerns the equipment identified in clause 3 and described in clause 6.

Only an integral reproduction of this report is authorized.

The manufacturer, or his representative, commits himself not to use this report for equipment that is not strictly identical to the equipment covered by this report.

3. Identification of the equipment

3.1 Manufacturer – Manufacturing place – Place on the market

KAYA YAPI İÇ MİM. TAS. İNŞ. TAAH. SAN. ve TİC. A.Ş. - G.O.S.B 1000. Sokak No:1015 41480 Çayırova – KOCAELI – Turkey

3.2 Tested equipment

Following equipment has been tested: Trade mark: **KAYA SAFETY** Reference: **K-2010 A** A conformity certificate is awarded for this reference

3.3 Equivalences

No equivalence

3.4 Other trade name

No other trade mark

4. Conditions for use of the equipment

This anchor device –type C- is intended for use as part of a personal fall protection system, is intended to be removable from the structure and to be part of the anchor system.

5. Reference specification

The assessment of conformity with the provisions of European standard "Personal protective equipment against falls from a height — Anchor devices" EN 795:2012 and according to the technical specification "Anchor devices - Recommendations for anchor devices for use by more than one person simultaneously" CEN/TS 16415:2013.



6. Description of the equipment

6.1 Drawing





6.2 Type of anchor device

Main characteristics

- Span: single and multi, min. 5 m and max. 25 m
- User: 8 people
- Cable tension: 100 daN
- Direction of use: ceiling, wall and floor
- Turn: 90° internal and external
- Angle of use: max. 15°
- Energy absorber: at each end
- This device has no : joint, entry/exit line fitting, flexible support fixed on anchor, no metallic material without evidence of durability
- This device cannot be used with EN 353-2 and EN 360

Components • Flexible anchor: wire rope in stainless steel AISI 316, 7x19 Ø 8mm	<u>References</u> LL-200 A
 Energy absober 	Kit EA-200 AT
Terminal anchor	ANB-100 A
 Intermediate anchor 	ARB-100 A
 Mobile anchor with 1 connector: Direction use: wall and floor Direction use: ceiling 	SRY-50 + K-14 SRY-200
Tensioner block	Kit EA-200 AT
• Turn	ARB-100C1
Turn for ceiling use	ARB-100C2

6.3 Description of components

Detailed description of the equipment model **K-2010 A**, in the manufacturing technical file received on 21/12/2017, updated on 15/02/2018, and edited by KAYA

6.4 Location of the marking

- * Marking clear and permanent: Conform
- * Location of the marking: On each component



7. Examination report

Auticle of		Conformity		nity	
the standard EN 795	Content	Yes	No	N.A	Comments
Art 1	Scope				
	This European Standard is not applicable to:				
	* anchor devices intended to allow more than one user to be			~	Use by 8 people
	attached at any one time;anchor devices used in any sports or recreational activity;	~			
	 equipment designed to conform to EN 516 or EN 517; 	✓			
	* elements or parts of structures which were installed for use other	✓			
	 structural anchors 	~			
Art. 4.1	Requirements- General				
4.1.1	When checked in accordance with 5.1.7, anchor devices shall be designed in such a way that they can be removed from the structure, without damaging the structure or the anchor device, thus ellowing its rouse on a for pariadic examination.	~			
4.1.2	 When checked in accordance with 5.1.7, U-bolt clamps shall not be 	~			
4.1.3	 When checked in accordance with 5.1.7, it shall not be possible for elements with an anchor point to become detached unintentionally. If the element or mobile anchor point can be removed, it shall be designed such that it can only be detached after executing two separate, consecutive and deliberate manual actions. 	~			
4.1.4	When checked in accordance with 5.1.7, anchor devices shall be of such a design and size to allow connectors to rotate freely and sit in the anchor point in the preferred load-bearing position.	~			
4.1.5	When checked in accordance with 5.1.7, for anchor devices comprising more than one element and for anchor devices with elements that can be adjusted, the design shall be such that those elements cannot appear to be positively locked together when incorrectly assembled or adjusted.	✓			Date of tests : 22/08/2017
4.1.6	 When checked in accordance with 5.1.7, the mass of any element of an anchor device that is intended to be transported by a single person shall not exceed 25 kg. 	~			m _{max} = >25kg 100m cable
4.1.7	 If the anchor device is equipped with a fall indicator, the indicator shall clearly indicate a fall has occurred after the dynamic strength and integrity test(s). 			~	



			Со	Conformity		
Article of the standard EN 795		Content	Yes	No	N.A	Comments
4.1.8 4.1.9	×	When an anchor device consists of a combination of several types, it shall be tested for each relevant type and for the combination, e.g. a combination of type C and type E anchor devices. Where the information provided by the manufacturer permits loading in more than one direction (e.g. in tension and in shear) (see 7 c)), anchor devices shall be tested in each safety critical direction.	~		~	Ceilling, wall and floor
Art. 4.2		Requirements - Materials				
4.2.1 4.2.1.1 4.2.1.2	*	Metal parts After testing in accordance with 5.8, there shall be no corrosion of the base material. The presence of tarnishing and white scaling is acceptable. Metal parts of anchor devices shall show no evidence of corrosion that would affect their functional operation, e.g. the correct operation of moving elements. NOTE Conformity to this requirement does not imply suitability for use in a marine environment. If steel wire ropes are galvanised, the galvanisation shall be in			 ✓ 	
422		accordance with ISO 2232.				
4.2.2	~	Fibre renee, webbing and equips threads shall be made from virgin				
4.2.2.1	×	filament or multi-filament synthetic fibres. NOTE Examples of suitable materials for use in rope and webbing are polyamide, polyester and mixtures of polyamide and polyester. Threads used for sewing shall be of a contrasting shade or colour when compared to the rope or webbing to facilitate visual inspection.			 ✓ 	
4.2.3		Connectors				
		Connectors shall conform to EN 362.	\checkmark			
Art 4.3		Requirements - Design and ergonomics				
		When checked in accordance with 5.1.7, anchor devices shall not have sharp edges or burrs that may cause injury to the user or that may cut, abrade or otherwise damage itself or any part of the personal fall protection equipment that may come into contact with it. NOTE It is recommended that exposed edges or corners of elements are relieved either with a radius of at least 0,5 mm or a chamfer of at least 0,5 mm x 45°.	~			





Article of			Conformity			
the standard EN 795		Content	Yes	No	N.A	Comments
Art. 4.4	×	Requirements – Specific requirements				
4.4.1		Type A anchor devices			✓	TYPE C
4.4.2		Type B anchor devices			✓	TYPE C
4.4.3		Type C anchor devices				
4.4.3.1		When tested in accordance with 5.5.2 (deformation test), no part of the extremity anchors, intermediate anchors or mobile anchor point which is intended to deform, e.g. to absorb energy, shall demonstrate permanent deformation of more than 10 mm in the direction of loading.	~			Date of tests: from 22nd to 24/08/2017
		Articles of EN795:2012 taking into account for Deformation test: Articles 5.1, 5.5.1 and 5.5.2				See appendix 2
4.4.3.2		Performance predictions based on calculations or test results shall be available for configurations of the anchor device agreed in 5.5.1.2. including information on:	✓			See appendix 1
		a) the maximum deflection of the mobile anchor point(s);	✓			
		b) the maximum load applied to the extremity anchor and those intermediate or corner units that are considered to be in-line fittings. Alternatively, for devices that do not incorporate an extremity anchor, e.g. a circular device, the maximum load in the anchor line.	~			
4.4.3.3		When tested in accordance with 5.5.3.1 (single-span dynamic strength and integrity test) and 5.5.3.2 (multi-span dynamic strength and integrity test), the values at the extremities and the maximum dynamic deflection of the flexible anchor line shall not vary by more than ± 20 % from those predicted. Articles taking into account for dynamic strength and integrity test: Articles 5.1.55.1.52.1.4.5.2.2.5.5.3.1.5.5.3.2	~			See appendix 3
Art		Determination of free fall distance - Determine DCL_{9kN} for F = 9kN	✓			DCL _{9kN} = 2.2 m
5.2.1.4		Using a rigid test mass of (100 ± 1) kg in accordance with EN 364:1992, 4.5, determine the free fall distance of the rigid test mass required to generate a fall arrest load of $(9 + 0.5/0)$ kN in the dynamic strength and integrity tests by carrying out a test using an anchor point fixed to the structure. When testing over pulleys, the free fall distance may need to be adjusted to achieve the load of $(9 + 0.5/0)$ kN.				
4.4.3.4		When tested in accordance with 5.5.3, (dynamic strength and integrity tests), the anchor device shall not release the rigid test mass and the rigid test mass shall be held clear of the ground. No part of the anchor device shall break.	~			See appendix 3





Article of		Со	nform	nity	
the standard EN 795	Content	Yes	No	N.A	Comments
4.4.3.5	When tested in accordance with 5.5.4 (static strength tests) with the mobile anchor point immediately adjacent to an extremity anchor; on an intermediate anchor; on a corner anchor; on an entry/exit line fitting and on a joint in the flexible anchor line, where these are part of the anchor device, the anchor device including all load-bearing elements, flexible anchor lines, line fittings and terminations (e.g. swaged connections, sewn loops, spliced terminations) shall hold a load of $(12 + 1,0/0)$ kN. For non-metallic elements, if evidence of durability is not provided, the static load shall be 18 kN.	 Image: A start of the start of			See appendix 5
4.4.3.6	When tested in accordance with 5.5.3 and 5.5.4, the mobile anchor point shall not become detached from the flexible anchor line.	✓			
4.4.3.7	Where the flexible anchor line is fixed in the intermediate or corner anchor (i.e. the intermediate and corner anchors effectively become extremity anchors), multi-span anchor devices shall be tested as single-span anchor devices.	~			
4.4.4	Type D anchor devices			✓	TYPE C
4.4.5	Type E anchor devices			~	TYPE C



Article of			nform	nity	
the standard EN 795	Content	Yes	No	N.A	Comments
5.6	Type D anchor devices			~	TYPE C
5.7	Type E anchor devices			✓	TYPE C
5.8	Corrosion resistance [*] Expose representative samples of the metal parts of the anchor device to the neutral salt spray test in accordance with EN ISO 9227 for a period of $(24 + 0,5/0)$ h. Dry for $(60 + 5/0)$ min at (20 ± 2) °C. Then repeat the procedure, so that the anchor device is subjected in total to $(24 + 0,5/0)$ h exposure and $(60 + 5/0)$ min drying plus another $(24 + 0,5/0)$ h exposure and $(60 + 5/0)$ min drying. Examine the anchor device and verify that it meets the requirements of 4.2.1. Where necessary to gain visual access to the internal elements, dismantle the anchor device. *Tests carried out by our subsidiary	✓			Date of tests: from15th to 17/05/2017 validated by Apave file 17.6.0132
Art 4.5	Requirements – Marking and information				
4.5.1	Marking shall be in accordance with Clause 6.	\checkmark			
4.5.2	Information shall be supplied with the anchor device in accordance with Clause 7.	~			



			nform	nity	
Article of the standard EN 795	Content	Yes	No	N.A	Comments
ART 6	Marking				
	Marking of the anchor device shall conform to EN 365 and, in addition, shall include that the anchor device shall be for the use of one user only.				
	Article 4.8 de la norme EN 365:2004				
4.8.1 EN 365:2004	Each item of PPE or other equipment shall be clearly, indelibly and permanently marked by the manufacturer in the official language of the country of destination, by any suitable method not having a harmful effect on the materials so marked, and shall include at least:				
	a/ a means of identification, e.g. manufacturer's name, supplier's name, or tradedmark; Note : When PPE is marked with the supplier's name this should be with the approval of the Notified body.	~			
	b/ the manufacturer's production batch or serial number or other means of traceability;	~			
	c/ the model and type/identification;	\checkmark			
	d/ the number and year of the European Standard to which the equipment conforms;	~			
	e/ a pictogram or other method to indicate the necessity for users to read the instruction for use:	~			
	f/ any additional marking required in the relevant European Standard	~			
4.8.2 EN 365:2004	The characters in the markings shall be legible and unambiguous.	*			



		Conformity		nity	
Article of the	Content				Comments
standard	Content	Yes	No	N.A	Comments
EN 795					
Art 7	Information supplied by the manufacturer				
	The information supplied by the manufacturer shall be provided in at least the language(s) of the country of destination. It shall				
	conform to EN 365:				
Only the	e English version has been checked. It is the responsibil	ity o	f the	mai	nufacturer to
supp	ly the instruction for use in the official languages of the	coui	ntry	of de	stination.
	Instruction for use				
	The manufacturer shall prepare instructions for use for				
	maintenance and for periodic examination for each item of				
	PPE or other equipment, in the official languages of the				
	country of destination.				
	Note : The Instructions for use, for maintenance and for				
	documents.				
4.2.1	The instruction for use shall be in written format, shall be clear,				
EN 365:2004	legible and unambiguous, and shall contain appropriate detail, supplemented by diagrams if necessary to enable the PPE or				
	other equipment to be used correctly and safely.				
4.2.2	The instruction for use shall include:				
EN 305:2004	a) the name and contact details of the manufacturer or authorised	~			
	representative as appropriate;				
	application and limitations:	v			
	c) a warning about medical conditions that could affect the safely	\checkmark			
	of the equipment user in normal and emergency use; d/a warring that the equipment shall only be used by a person				
	trained and competent in its safe use;	•			
	e/ a warning that a rescue plan shall be in place to deal with any	✓			
	emergencies that could arise during the work; f/ a warning against making any alterations or additions to the	\checkmark			
	equipment without the manufacturer's prior written consent, and				
	that any repair shall only be carried out in accordance with				
	\mathbf{g} a warning that the equipment shall not be used outside its	\checkmark			
	limitations, or for any purpose other than that for which it is				
	Intended; h/ advice as to whether the equipment should be a personal issue	\checkmark			
	item;				
	i/ sufficient information to ensure the compatibility of items of	~			
	j/ a warning of any dangers that may arise be the use of	\checkmark			
	combinations of items of equipment in which the safe function of				
	any one item is affected by or interferes with the safe function or another:				
	${\bf k}/$ an instruction for the user to carry out a pre-use check of the	✓			
	equipment, to ensure that it is in a serviceable condition and				
	Note : a pre-use check by the user of certain parts of equipment				
	for emergency use which have been pre-packed or sealed by a				
	<i>competent person may not be applicable.</i> I/ the features of the equipment that require the pre-use check, the	~			
	method of cheching, and the criteria against which the user can				
	decide whether or not the equipment is defective;				



		Conformity		nity	
Article of the standard EN 795	Content	Yes	No	N.A	Comments
4.2.2 EN 365:2004	 m/ a warning stating that it is essential for safety that equipment is withdraw from use immediately should: 1/ any doubt arise about its condition for safe use or; 2/ it have been used to arrest a fall and not used again until confirmed in writing by a competent person that it is acceptable to do so; n/ the requirements of the anchor device or structural member chosen to serve as the anchor point(s), in particular the minimum required strength, the suitability and the position; o/ where relevant, instructions on how to connect to the anchor device or structure; p/ where relevant, and instruction detailing the correct harness 	✓ ✓ ✓			
	attachment point to use, and how to connect to it; q/ For equipment intended for us in fall arrest systems, a warning to emphasise that it is essential for safety that the anchor device or anchor point should always be positioned, and the work carried out in such a way, as to minimize both the potential for falls and potential fall distance. Where it is essential that the anchor device/point is placed above the position of the user, the manufacturer shall make a statement to that effect; r/ where relevant, and instruction that a full body harness is the only acceptable body holding device that can be used in a fall	✓			
	 arrest system; s/ For equipment intended for use in fall arrest systems, a warning to emphasise that is essential for safety to verify the free space required beneath the user at the workplace before each occasion of use, so that, in the case of a fall, there will be no collision with ground or other obstacle in the fall path; t/ information on the hazards that may affect the performance of the second seco	✓ ✓			
	the equipment and corresponding safety precautions that have to be observed e.g: extremes of temperature, trailing or looping of lanyards or lifelines over sharp edges, chemical reagents, electrical conductivity, cutting, abrasion, climatic exposure, pendulum falls;				
	 u/ instructions as relevant on how to protect the equipment against damage during transportation; v/ information on the meaning of any markings and/or symbols on the equipment; w/ a statement describing the equipment model, type, 	✓ ✓ ✓			
	 identification marks and if appropriate the European Standard and year to which it conforms; x/ where it is a requirement that a EC type examination be carried out by a Notified body, the name, address and identification number of the Notified Body; y/ a statement of any known limit to the safe useable life of the product or any part of the product and/or advice on how to 	✓		√*	
*Exti	determine when the product is no longer safe to use; ract of OJEU of December 2015				

CEN EN 795-2012 Personal fall protection equipment — Anchor devices	This is the first publication	EN 795:1996 Note 2.1	The date of this pub- lication
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Warning: This publication does not concern the equipment described in:
type A (anchor devices with one or more stationary anchor points and with the need for structural anchors or fixing elements to fix to the structure) referred to in clauses 3.2.1, 4.4.1, 5.3;
type C (anchor devices employing horizontal flexible anchor lines) referred to in clauses 3.2.3, 4.4.3 and 5.5;
type D (anchor devices employing horizontal rigid anchor lines) referred to in clauses 3.2.4, 4.4.4 and 5.6;
any combination of the above.
In respect of types A, C and D, this publication does not concern either clauses: 4.5, 5.2.2, 6, 7; Annex A or Annex ZA. Accordingly, in respect of the equipment mentioned above, there shall be no presumption of conformity with the provisions of Directive 89/686/EEC because they are not considered to be PPE.



		Conformity		nity	
Article of the standard EN 795	Content	Yes	No	N.A	Comments
4.2.2 EN 365:2004	 z/ a warning that it s essential for the safety of the user that if the product is re-sold outside the original country of destination the reseller shall provide instructions for use, for maintenance, for periodic examination and for repair in the language of the country in which the product is to be used; Note 2 any additional information required by European Standards to which the equipment is claimed to conform. 	~			
Art 4.3 Art 4.3.1 EN 365:2004	Instructions for maintenance The maintenance instructions shall be clear, legible and unambiguous and shall contain appropriate detail, supplemented by diagrams if necessary, to enable the PPE or other equipment to be maintained	✓			
Art 4.3.2 EN 365:2004	 a/ cleaning procedures, including disinfection where applicable, without causing adverse effect on the materials used in the manufacture of the aquinement or to the user, and a warping that the procedure is to be 	~			
	 b/ where appropriate, a warning that when the equipment becomes wet, either from being in use or when due to cleaning, it shall be allowed to dry naturally, and shall be kept away from direct heat. 	~			
	c/ storage procedures, including all necessary preventative requirements where environmental or other factors could affect the condition of components, e.g. damp environment, sharp edges, vibration, ultra-violet degradation;	~			
Art 4.4	d/ other maintenance procedures as relevant to the equipment, e.g. lubrication.	~			
EN 365:2004	a / warning to emphasize the need for regular periodic examinations, and that the safety of users depends upon the continued efficiency and durability of the equipment;	✓			
	b / recommendation in regard to the frequency of periodic examinations, taking account of such factors as legislation, equipment type, frequency of use, and environmental conditions, but shall include a statement to the effect that the periodic examination frequency shall be at least every 12	~			
	c/ warning to emphasize that periodic examinations are only to be conducted by a competent person for periodic examination and strictly in accordance with the manufacturer's periodic examination procedures;	v			
	d / Where deemed necessary by the manufacturer, e.g. due to the complexity or innovation of the equipment, or where safety critical knowledge is needed in the dismantling, reassembly, or assessment of the equipment (e.g. a rectratable type fall arrester), an instruction specifying that periodic examinations shall only be conducted by the manufacturer or by a person or organisation authorised by the manufacturer;	~			
	e/ requirement to check the legibility of the product markings	✓			
Art 4.5 EN 365:2004	Instructions for repair Where the manufacturer permits repair, repair instructions shall be supplied in the official languages of the country in which the item is in service. These instructions shall include a statement to the effect that any repair shall only be conducted by a competent person for repair, who has been authorised by the manufacturer, and that the repair procedure shall be strictly in accordance with the manufacturer's instructions.	~			



Article of		Со	nform	nity	
the standard EN 795	Content	Yes	No	N.A	Comments
4.6 EN 365:2004 <i>Art 4.7</i> EN 365:2004	 Records Advice shall be given that a record is kept for each component, subsystem and system. The record should contain headings for and spaces to allow entry of the following details: a/ product (e.g. full body harness), model and type/identification and its trade name; b/ name and contact details, of the manufacturer or supplier; c/means of identification, which could be the batch or serial number; d/ where applicable, the year of manufacture of life expiry date, refer 4.2.2 (y); e/ the date of purchase: f/ any other information as necessary e.g. maintenances and frequency of use; g/ date first put into use; h/ history of periodic examinations and repairs, to include: 1/ the dates and details of each periodic examination and repair, and the name and signature of the competent person who carried out the periodic examination or repair; 2/ the next due date for periodic examination. Note: It is the responsibility of the user organisation to provide the record and to enter onto the record the details required. Periodic examination Manufacturer shall provide all the necessary information and equipment e.g. instructions, checklists, spare parts lists and specials tools etc, to enable periodic examinations to be carried out by a competent person. Note : Manufacturers may provide training for persons to become competent or for updating competency in the periodic examination of PPE or other equipment, or make arrangements for authorised organisations or persons to be made available. 				



		Со	nform	nity	
Article of the standard EN 795	Content	Yes	No	N.A	Comments
the standard EN 795 Art 7	 Content Information supplied by the manufacturer (continuation). The information supplied by the manufacturer shall be in addition, shall include at least the following advice or information: a) that the anchor device is for the use of one person only: b) that when the anchor device is used as part of a fall arrest system, the user has to be equipped with a means of limiting the maximum dynamic forces exerted on the user during the arrest of a fall to a maximum of 6 kN; c) on the maximum loads(s) that could be transmitted in service from the anchor device to the structure and the directions of loading relevant to the type of fixing and structure; d) on the maximum value of deflection of the anchor device and displacement of the anchor point that can occur in service; e) for anchor devices intended to deform during deployment, guidance on their suitability for use in different types of personal fall protection systems, e.g. rope access, rescue; f) for non-metallic elements or components of the anchor device, information on the materials from which they are made; g) that it is recommended the anchor device is marked with the date of the need for stability of the anchor device, guidance on how to achieve it and whether the manufacturer permits differential adjustments; i) for type C anchor devices (specifics requirements not detailed) e) a statement to indicate whether the anchor device, and onjunction with retractable type fall arresters, and if allowed, descriptions, model numbers and any other information to cleaver under the institute the anchor device series are allowed; i) for types C and D anchor devices. i) for types C and D anchor devices. i) for types C and D anchor devices i) the potential dangers that arise when type C anchor devices are combined with retractable type fall arresters (EN 360) or guided type fall arresters including a flexible anchor pine (EN 353-2), whic	Yes ✓ ✓ ✓ ✓ ✓ ✓ ✓	No	N.A	Comments Type C anchor device
	 in the anchor line without removing it from the anchor line, e.g. at corners or at intermediate anchors, a description of suitable measures for the safe transfer of the mobile anchor point; k) for type E anchor devices (specifics requirements not detailed) l) documentation after installation and periodic examination m) that the anchor device should only be used for personal fall protection equipment and not for lifting n) for anchor devices that include a fall indicator, information on how to inspect the fall indicator. 	\rightarrow \rightarrow		× ×	



Article of			Co	nform	nity	
the TS 16415		Content	Yes	No	N.A	Comments
Art 1		Scope				
		This Technical Specification is not applicable to:				
	×	anchor devices intended to allow only one user to be attached at	~			
	×	anchor devices used in any sports or recreational activity;	~			
	×	equipment designed to conform to EN 516 or EN 517;	✓			
	× ×	elements or parts of structures which were installed for use other than as anchor points or anchor devices, e.g. beams, girders; structural anchors	✓ ✓			
Art. 4.1		Requirements- General				
	×	Anchor devices intended for use by more than one person simultaneously shall conform to EN 795:2012.	~			
Art 4.2		Requirements - Specific				
4.2.1		Type A anchor device			~	TYPE C
4.2.2		Type B anchor device			~	TYPE C
4.2.3		Type C anchor device – Single span			~	
4.2.3.1	×	When tested in accordance with 5.4.2 (dynamic strength and integrity test), the anchor device shall not release the rigid test mass and the rigid test mass shall be held clear of the ground. No part of the anchor device shall break.				
4.2.3.2	×	When tested in accordance with 5.4.2 (dynamic strength and integrity test), the maximum load measured at the extremity anchor should not exceed 50 % of the minimum breaking strength of the flexible anchor line as specified in the information supplied by the manufacturer (see Clause 7).				
4.2.3.3	×	When tested in accordance with 5.4.2 (dynamic strength and integrity test) the values at the extremities and the maximum dynamic deflection of the flexible anchor line shall not vary by more than $\pm 20\%$ from those predicted.				
4.2.3.4	×	When tested in accordance with 5.4.3 (static strength test), the				
4.2.4		Type C anchor device – Multi span				
4.2.4.1	×	When tested in accordance with 5.4.4 (dynamic strength and integrity test), the anchor device shall not release the rigid test mass and the rigid test mass shall be held clear of the ground. No	✓			See results in appendix 4
4.2.4.2	×	When tested in accordance with 5.4.4 (dynamic strength and integrity test), the maximum load measured at the extremity anchor shall not exceed 50 % of the minimum breaking strength of the flexible anchor line as specified in the information supplied by the manufacturer (see Clause 7).	✓			See results in appendix 4



		Со	nform	nity	
Article of the TS 16415	Content	Yes	No	N.A	Comments
4.2.4.3	When tested in accordance with 5.4.4 (dynamic strength and integrity test), the values at the extremities and the maximum dynamic deflection of the flexible anchor line shall not vary by more than + 20 % from those predicted	<			See results in appendix 4
4.2.4.4	 When tested in accordance with 5.4.5 (static strength test), the anchor device shall hold the load. 	~			See results in appendix 5
4.2.4.5	When tested in accordance with 5.4.5 (static strength test) with the mobile anchor point(s) immediately adjacent to an extremity anchor, on an intermediate anchor, on a corner anchor, on an entry/exit line fitting, and on a joint in the flexible anchor line, where these are part of the anchor device, the anchor device including all load-bearing elements, flexible anchor lines, line fittings and terminations (e.g. swaged connections, sewn loops, spliced terminations) shall hold the load.	*			
4.2.4.6	Where the flexible anchor line is fixed in the intermediate or corner anchor (i.e. the intermediate and corner anchors effectively become extremity anchors), multi-span anchor devices shall be tested as single span anchor devices.			•	
4.2.5	Type D anchor device			•	TTPEG
4.2.6	Type E anchor device			~	TYPE C



			Со	nform	nity	
the standard EN 795		Content	Yes	No	N.A	Comments
Art. 4.3		Requirements - Marking and information				
4.3.1 4.3.2	× ×	Marking shall be in accordance with Clause 6. Information shall be supplied with the anchor device in accordance with Clause 7.	✓ ✓			
Art 5.1		Test Method - Test apparatus				
	×	The test apparatus shall be in accordance with EN 795:2012, 5.2.	\checkmark			
Art 5.2		For the first two simultaneous users, increase the rigid test mass to (200 \pm 1) kg and determine the free fall distance required to generate a fall arrest load of (12 +0,5/- 0) kN by using a test lanyard with sewn terminations and the overall lanyard length reduced to (1 +0,1/-0) m. Test Method – Type A anchor device			✓	TYPE C
Art 5.3		Test Method – Type B anchor device			~	TYPE C
Art 5.4		Test Method – Type C anchor device	√			
5.4.1		Test Method – General	✓			
5.4.1.1	×	Performance predictions based on calculations or test results shall be available for configurations of the anchor device applied in 5.4.1.3, including information on: a) the maximum deflection of the mobile anchor point(s); b) the maximum load applied to the extremity anchor and those intermediate or corner units that are considered to be in-line fittings. Alternatively, for devices that do not incorporate an extremity anchor, e.g. a circular device, the maximum load in the anchor line; c) the number of users permitted by the manufacturer.				
5.4.1.2	×	Install the extremity and intermediate anchor(s) in or on the test apparatus, as appropriate, in accordance with the information supplied by the manufacturer, horizontally at an angle of ± 3 °, where relevant using a construction fixing as recommended in the information supplied by the manufacturer, into or onto a sample of construction material(s) also recommended in the information supplied by the manufacturer. Arrange the test configuration(s) taking into account the following: a) the loading directions in use (e.g. intermediate and extremity anchors				
5.4.1.4 5.4.1.5	× ×	 Inconted on a wail, celling, roor or ground); b) the span length; NOTE A span equals the distance between flexible anchor line fixings, e.g. extremity anchor and intermediate anchor. c) corners (internal and external corners, maximum deviation); d) types and combinations of components, e.g. energy absorber(s), terminations, intermediate anchors, mobile anchor points, flexible anchor line(s). If the anchor device does not have a mobile anchor point use a connection as specified in the information supplied by the manufacturer. Where the intermediate anchor and corner anchor of the flexible anchor line do not permit articulation of the mobile anchor point with the direction of loading that could be applied in service, carry out the static strength test described in 5.4.3 or 5.4.5 in directions both in line and perpendicular to the intermediate anchor and corner anchor mounting bolts. 				



		Со	nform	nity	
Article of the standard EN 795	Content	Yes	No	N.A	Comments
5.4.2	Test Method – Single span	✓			
5.4.2.1 5.4.2.1.1	 Dynamic strength and integrity test Prior to testing, take into account the predictions of maximum dynamic load at the extremity anchor and maximum deflection of the flexible anchor line submitted by the manufacturer in accordance with 5.4.1.1 				
5.4.2.1.2	 Install the manufacturer's longest permissible single-span anchor device in accordance with the information supplied by the manufacturer. 				
5.4.2.1.3	 Attach a load cell to each end of the flexible anchor line so that the tension at the extremities can be measured. 				
5.4.2.1.4	 Carry out one test using a test lanyard as described in 5.1, connected to a 200 kg rigid test mass. 				
5.4.2.1.5	Attach a load cell to a mobile anchor point. Attach one end of the test lanyard to the load cell by means of a connector and the other end of the test lanyard, also by means of a connector, to the rigid test mass. Position the mobile anchor point at the centre of the span.				
5.4.2.1.6	Attach a quick release device to the rigid test mass. Move the rigid test mass downwards until the test lanyard holds the mass. Remove the load until the flexible anchor line returns to its natural position. From this point, raise the rigid test mass to the free fall distance determined in 5.1 and hold it at a maximum of 300 mm horizontally.				
5.4.2.1.7	Release the rigid test mass and observe and record whether the rigid test mass is arrested. Measure and record the maximum load at each end of the flexible anchor line and at the mobile anchor point. Also, measure and record the maximum dynamic deflection at the mobile anchor point (e.g. by high speed video, displacement transducer).				
5.4.2.1.8	 Check that the mobile anchor point does not become detached from the flexible anchor line and/or does not release the rigid test mass and the rigid test mass is held clear of the ground. Becord the result 				
5.4.2.1.9	 Leaving the 200 kg rigid test mass suspended from the flexible anchor line or with an equivalent static load applied, repeat the dynamic test for each additional user using a rigid test mass of 100 kg, a test lanyard as described in EN 795:2012, 5.2.1, another mobile anchor point and a free fall distance to generate a fall arrest load of (9 +0,5/- 0) kN. For each test, leave the mass(es) from the previous test(s) suspended from the flexible anchor line or apply the load statically. NOTE To prevent collision of the test mass(es) the position of the suspended test mass(es) may be lowered or raised. 				
5.4.2.1.10	After the dynamic test, for two users increase the mass to 600 kg or an equivalent load on the anchor device and hold it for (3 +0,25/-0) min. For more than two users, increase the mass by 150 kg per user or an equivalent load (e.g. for 4 users the mass would be 900 kg), and hold this or the equivalent load for (3 +0,25/-0) min. Check whether the rigid test mass is held clear of the ground.				
5.4.2.1.11	 Install the manufacturer's shortest permissible single-span anchor device in accordance with the information supplied by the manufacturer and carry out the test described in 5.4.2.1.3 to 5.4.2.1.10. 				
5.4.3	Static strength test	✓			
	Using the same test configurations and test positions as those used for the dynamic strength and integrity tests described in 5.4.2.1, apply a static test load of $(12 + 1/-0) kN + (1 + 0, 1/-0) kN$ for each additional user (e.g. 4 users = 15 kN) or, where any load bearing element or component is made from non-metallic material(s) and where evidence of durability is not provided by the manufacturer, $(18 + 1/-0) kN + (1 + 0, 1/-0) kN$ for each additional user. Observe whether the anchor device holds the load for a period of $(3 + 0, 25/-0)$ min.				





			Со	nform	nity	
Article of		Content				Commonto
standard		Content	Yes	No	N.A	Comments
EN 795						
5.4.4		Test Method – Multi span	✓			
5.441		Dynamic strength and integrity test	\checkmark			
5.4.4.1.1	×	Prior to testing, take into account the predictions of maximum dynamic				
		load at the extremity anchor and maximum deflection of the flexible anchor				
E A A 4 O		line submitted by the manufacturer in accordance with 5.4.1.1.				
3.4.4.1. 2	×	Instant a nexible anchor line, which includes 3 spans, with the longest length permitted at one end of the installed flexible anchor line and where				
		the other two spans are of the shortest length permitted by the				
		manufacturer in accordance with the information supplied by the				
54412	¥	Manufacturer.				
5.7.7.1.3	^	at the extremities can be measured.				
5.4.4.1.4	×	Carry out one test using a test lanyard as described 5.1, connected to a				
5 A A 4 F		200 kg rigid test mass.				
5.4.4.1.5	×	Allach a load cell to a mobile anchor point. Attach one end of the test lanvard to the load cell by means of a connector and the other end of the				
		test lanyard, also by means of a connector, to the rigid test mass. Position				
		the mobile anchor point at the centre of the longest span.				
5.4.4.1.6	×	Attach a quick release device to the rigid test mass. Move the rigid test				
		until the flexible anchor line returns to its natural position. From this point.				
		raise the rigid test mass to the free fall distance determined in 5.1 and hold				
		it at a maximum of 300 mm horizontally from the mobile anchor point.				
5.4.4.1. <i>1</i>	×	melease the rigid test mass and observe and record whether the rigid test mass is arrested. Measure and record the maximum load at each and of				
		the flexible anchor line and at the mobile anchor point. Also, measure and				
		record the maximum dynamic deflection at the mobile anchor point (e.g. by				
51110	~	high speed video, displacement transducer).				
5.4.4.1.0	^	flexible anchor line and/or does not release the rigid test mass and the				
		rigid test mass is held clear of the ground. Record the result.				
5.4.4.1.9	×	Leaving the 200 kg rigid test mass suspended from the flexible anchor line				
		additional user using a rigid test mass of 100 kg, a test lanvard as				
		described in EN 795:2012, 5.2.1, another mobile anchor point and a free				
		fall distance to generate a fall arrest load of (9 +0,5/-0) kN. For each test,				
		leave the mass(es) from the previous test(s) suspended from the flexible				
		NOTE To prevent collision of the test masses the position of the				
		suspended test mass(es) may be lowered or raised.				
5.4.4.1.10	×	Atter the dynamic tests, for two users increase the mass to 600 kg or an				
		more than two users, increase the mass by 150 kg per user or an				
		equivalent load (e.g. for 4 users the mass would be 900 kg), and hold this				
		or the equivalent load for (3 +0,25/-0) min. Check that the rigid test mass is				
5.4.4.1.11	×	Where there is a corner anchor fitted in the flexible anchor line carry out				
		the dynamic strength and integrity test with the mobile anchor point				
		positioned at the corner anchor.				
5.4.4.1.12	×	Where there are entry/exit line tittings or a joint in the line, carry out the				
		at these positions.				
5.4.4.1.13	×	Repeat the tests described in 5.4.4.1.3 to 5.4.4.1.12 for the shortest span				
		permitted by the manufacturer at the middle of the shortest span between				
		ine intermediate anchors.				



Article of		Со	nform	nity			
the standard EN 795	Content	Yes	No	N.A	Comments		
5.4.5	Static strength test	✓					
Art 5.5	Using the same test configurations as those used in the test described in 5.4.4.1, apply to the mobile anchor point, or a suitable connector attached to the flexible anchor line, a static load of $(12 + 1/-0) kN + (1 + 0, 1/-0) kN$ for each additional user (e.g. 4 users = 15 kN) or, where any load bearing element or component is made from non-metallic material(s) and where evidence of durability is not provided by the manufacturer, $(18 + 1/-0) kN + (1 + 0, 1/-0) kN$ for each additional user. Observe whether the anchor device holds the load for a period of $(3 + 0, 25/-0)$ min. Test Method – Type D anchor device			V	TYPE C		
Art 5.6	Test Method – Type E anchor device			~	TYPE C		
ART 6	Marking						
	Marking of the anchor device shall conform to Clause 6 of EN 795:2012, except for 6 a), and, in addition, shall include the maximum number of users permitted simultaneously.	~					
ART 7	Information to be supplied by the manufacturer						
	Information supplied by the manufacturer shall conform to Clause 7 of EN 795:2012, except for 7 a), and, in addition, shall include the maximum number of users permitted simultaneously and for Type C anchor devices the minimum breaking strength of the flexible anchor line.	~					

8. Conclusion

The type C anchor device trade mark "KAYA SAFETY" and model "K-2010 A" conforms the applicable requirements of European standard EN 795:2012, the CEN/TS 16415:2013 and with the conformity of manufacturer's technical file.

Consequently, a certificate of conformity is issued for this equipment.

Number of certificate of conformity: 17.0186/A



Appendix 1 Configuration of test

Cor	nfiguration				Configu	iration of	test for dynamic	and static tests			
N°	Zone sollicited	Type of support	Span Single/M ulti	Span Min/max	Direction of use	Mobile anchor	Energy absorbeur	Tensionning system	Intermediate anchor	terminal anchor	Turn
GP1	Middle of biggest span	Wire rope 8mm Stainless steel ref LL 200 A	Single span	25m	Wall/floor	SRY-50 GLIDER	Energy absorbeur at each extremity ref EA-200 A	with screw on main anchor ANB-100A	intermediaite anchor ARB-100 A	main anchor ANB-100 A	NO
GP2	Middle of biggest span	Wire rope 8mm Stainless steel ref LL 200 A	e 8mm s steel Single span 25m (overhead position) SRY-200 Energy absorbed 200 A position) SLIDER ref EA-200 A		Energy absorbeur at each extremity ref EA-200 A	with screw on main anchor ANB-100A	intermediaite anchor ARB-100 A	main anchor ANB-100 A	NO		
GP3	Middle of biggest span	Wire rope 8mm Stainless steel ref LL 200 A	mm teel Mulispan 25/5m floor/wall SRY-50 A SLIDER ref 24.4 ref EA.4		Energy absorbeur at each extremity ref EA-200 A	with screw on main anchor ANB-100A	intermediaite anchor ARB-100 A	main anchor ANB-100 A	YES ARB-100-C1		
GP4	Middle of biggest span	Wire rope 8mm Stainless steel ref LL 200 A	Mulispan	25/5m	Ceiling (overhead position)	SRY-200 SLIDER	Energy absorbeur at each extremity ref EA-200 A	with screw on main anchor ANB-100A	intermediaite anchor ARB-100 A	main anchor ANB-100 A	YES ARB-100-C2
PP1	Middle of shortest span	Wire rope 8mm Stainless steel ref LL 200 A	Single span	5m	Wall/floor	SRY-50 GLIDER	Energy absorbeur at each extremity ref EA-200 A	with screw on main anchor ANB-100A	intermediaite anchor ARB-100 A	main anchor ANB-100 A	NO
PP2	Middle of shortest span	Wire rope 8mm Stainless steel ref LL 200 A	Single span	5m	Ceiling (overhead position)	SRY-200 SLIDER	Energy absorbeur at each extremity ref EA-200 A	with screw on main anchor ANB-100A	intermediaite anchor ARB-100 A	main anchor ANB-100 A	NO
PP3	Middle of biggest span	Wire rope 8mm Stainless steel ref LL 200 A	Mulispan	25/5m	floor/wall	SRY-50 SLIDER	Energy absorbeur at each extremity ref EA-200 A	with screw on main anchor ANB-100A	intermediaite anchor ARB-100 A	main anchor ANB-100 A	YES ARB-100-C1
PP4	Middle of biggest span	Wire rope 8mm Stainless steel ref LL 200 A	Mulispan	25/5m	Ceiling (overhead position)	SRY-200 SLIDER	Energy absorbeur at each extremity ref EA-200 A	with screw on main anchor ANB-100A	intermediaite anchor ARB-100 A	main anchor ANB-100 A	YES ARB-100-C2
INT1	On Intermediate anchor	Wire rope 8mm Stainless steel ref LL 200 A	Mulispan	25/5m	Wall/floor	SRY-50 GLIDER	Energy absorbeur at each extremity ref EA-200 A	with screw on main anchor ANB-100A	intermediaite anchor ARB-100 A	main anchor ANB-100 A	YES ARB-100-C1
INT2	On Intermediate anchor	Wire rope 8mm Stainless steel ref LL 200 A	Mulispan	25/5m	Ceiling (overhead position)	SRY-200 SLIDER	Energy absorbeur at each extremity ref EA-200 A	with screw on main anchor ANB-100A	intermediaite anchor ARB-100 A	main anchor ANB-100 A	YES ARB-100-C2
VIRINT1	On internal turn	Wire rope 8mm Stainless steel ref LL 200 A	Mulispan	25/5m	Wall/floor	SRY-50 GLIDER	Energy absorbeur at each extremity ref EA-200 A	with screw on main anchor ANB-100A	intermediaite anchor ARB-100 A	main anchor ANB-100 A	YES ARB-100-C1
VIREXT	On external turn	Wire rope 8mm Stainless steel ref LL 200 A	Mulispan	25/5m	Wall/floor	SRY-50 GLIDER	Energy absorbeur at each extremity ref EA-200 A	with screw on main anchor ANB-100A	intermediaite anchor ARB-100 A	main anchor ANB-100 A	YES ARB-100-C1
VIROVERHEAD1	On internal turn	Wire rope 8mm Stainless steel ref LL 200 A	Single span	25/5m	Wall/floor	SRY-200 SLIDER	Energy absorbeur at each extremity ref EA-200 A	with screw on main anchor ANB-100A	intermediaite anchor ARB-100 A	main anchor ANB-100 A	YES ARB-100-C2



Appendix 2 Deformation test

	Deformation		Results						
N°	TEST	Direction of use	Permanant deformation measured	Conformity (Def ≤10mm)					
DEF1	Main anchor bracket ANB-100	Wall/floor	0 mm	Yes					
DEF2	Main anchor bracket ANB-100	roof	0 mm	Yes					
DEF3	Inter anchor ARB-100A	Wall/floor	0 mm	Yes					
DEF4	Inter anchor ARB-100A	roof	0 mm	Yes					
DEF6	Energy absorbeur EA 200 A	Wall/floor	0 mm	Yes					
DEF7	Energy absorbeur EA 200 A	roof	0 mm	Yes					
DEF8	SLIDER SRY 50	/	0 mm	Yes					
DEF9	SLIDER SRY 200	/	0 mm	Yes					



Appendix 3 Dynamic and integrity test EN 795:2012

Dynamic-Integ	jrity		Results																																												
Configuration	Hdrop	Fmax anchor	Max	imum for	ce on ex	tremity	Maximu	m force c aft	on other e er turn	extremity or	Maxir	mum dyna	amic defl	ection	Mass	fall	Mass	Conformity																													
	Deuss	measured	measured	predicted	gap	conformity	measured	predicted	gap	conformity	measured	predicted	gap	conformity	and kept	activated	300kg	of test																													
GP1	2,2	4,55	14,41	15	-3,9	yes	13,88	14,5	-4,27586	yes	2010	2010 2000 0,5		yes	yes	yes	yes	yes																													
GP2	2	4,05	13,75	14,5	-5,2	yes	13,4	14 -4,28571		14 -4,28571		yes	1935	1925	0,519481	yes	yes	yes	yes	yes																											
GP3	2,2	5,59	12,88	14	-8,0	yes	2,95	N	NOT APPLICABLE			NOT APPLICABLE		NOT APPLICABLE		NOT APPLICABLE 2		NOT APPLICABLE 2		NOT APPLICABLE 2		NOT APPLICABLE		NOT APPLICABLE		NOT APPLICABLE		NOT APPLICABLE		NOT APPLICABLE		NOT APPLICABLE		NOT APPLICABLE		NOT APPLICABLE		NOT APPLICABLE		2540	2300	10,43478	yes	yes	yes	yes	yes
GP4	2	4,67	13,73	14,5	-5,3	yes	3,98	4,7	-15,3191	yes	1930	1950	-1,02564	yes	yes	yes	yes	yes																													
PP1	2,2	6,29	13,11	14	-6,4	yes	12,77	13,5	5 -5,40741 ye		600	550	9,090909	yes	yes	yes	yes	yes																													
PP2	2	6,82	14,21	15	-5,3	yes	13,84	14	-1,14286	yes	515	500	3	yes	yes	yes	yes	yes																													
PP3	2,2	5,78	7,19	8,5	-15,4	yes	1,12	N	NOT APPLICABLE		1075	1100	-2,27273	yes	yes	yes	yes	yes																													
PP4	2	6,46	9,1	10	-9,0	yes	2,25	2,75	-18,1818	yes	590	600	-1,66667	yes	yes	yes	yes	yes																													
INT1	2,2	6,14	0	N	OT APPLIC	ABLE	0	N	IOT APPLIC	ABLE		NOT AF	PPLICABLE		yes	yes	yes	yes																													
INT2	2	8,68	0	N	OT APPLIC	ABLE	0	N	IOT APPLIC	ABLE		NOT AF	PPLICABLE		yes	yes	yes	yes																													
VIRINT1	2,2	8,62	0,8	N	NOT APPLICABLE			N	IOT APPLIC	ABLE		not a	pplicable		yes	yes	yes	yes																													
VIREXT1	2,2	8,97	4,28	N	OT APPLIC	ABLE	3,83	N	IOT APPLIC	ABLE		not a	pplicable		yes	yes	yes	yes																													
VIROVERHEAD1	2	8,97	1,68	N	OT APPLIC	ABLE	1,73 NOT APPLICABLE not applicable					yes	yes	yes	yes																																



Appendix 4 Dynamic and integrity test TS 16415:2013

Dyna	mic-Integrity-MULTI	USERS			Results																				
Configuration	U.S. States of a	Hdi	rop	Fmax anchor	or Maximum force on extremity n°1								Maxim	um force	on extremit	tyn°2 or	after tu	m	Maxi	mum dynamie	c deflect	Mass	Mass increase tr	Conformit	
Configuration	Users tested	DCL9kN	D _{CL12kN}	measured	measured	predicted	gəp	conformity	Fbreaking cable	gap	conformity	measured	predicted	gap	conformity	Fbreaking cable	gap	conformity	measured	predicted	gəp	conformity	and kept	Mmax	Conformity
	2éme	S.O	1,70	6,43	14,07	14,00	-0,50	yes	39,80	35,35	yes	13,80	13,50	-2,17	yes	39,80	34,67	yes	2990	3000	0,33	yes	YES	YES	YES
	3ème	2,20	NA	7,51	15,12	14,70	-2,78	yes	39,80	37,99	yes	14,93	14,50	-2,88	yes	39,80	37,51	yes	3070	3050	-0,65	yes	YES	YES	YES
	4ème	2,20	NA	7,93	15,85	15,30	-3,47	yes	39,80	39,82	yes	15,64	15,00	-4,09	yes	39,80	39,30	yes	3095	3075	-0,65	yes	YES	YES	YES
GP1	5ème	2,20	NA	8,24	16,64	16,50	-0,84	yes	39,80	41,81	yes	16,37	16,00	-2,26	yes	39,80	41,13	yes	3225	3150	-2,33	yes	YES	YES	YES
	6ème	2,20	NA	7,51	14,45	15,00	3,81	yes	39,80	36,31	yes	13,61	14,00	2,87	yes	39,80	34,20	yes	3490	3250	-6,88	yes	YES	YES	YES
	7ème	2,20	NA	9,18	16,57	17,00	2,60	yes	39,80	41,63	yes	15,04	15,50	3,06	yes	39,80	37,79	yes	3600	3400	-5,56	yes	YES	YES	YES
	8ème	2,20	NA	10,20	18,15	18,00	-0,83	yes	39,80	45,60	yes	16,52	16,50	-0,12	yes	39,80	41,51	yes	3630	3450	-4,96	yes	YES	YES	YES
	2éme	S.O	1,50	6,22	13,75	15,00	9,09	yes	39,80	34,55	yes	13,34	14,00	4,95	yes	39,80	33,52	yes	3000	3000	0,00	yes	YES	YES	YES
	3ème	2,00	NA	6,47	13,45	14,50	7,81	yes	39,80	33,79	yes	13,20	13,50	2,27	yes	39,80	33,17	yes	3110	3010	-3,22	yes	YES	YES	YES
	4ème	2,00	NA	7,03	13,66	15,00	9,81	yes	39,80	34,32	yes	13,49	14,00	3,78	yes	39,80	33,89	yes	3180	3150	-0,94	yes	YES	YES	YES
GP2	5ème	2,00	NA	7,53	13,95	16,00	14,70	yes	39,80	35,05	yes	13,58	15,00	10,46	yes	39,80	34,12	yes	3410	3400	-0,29	yes	YES	YES	YES
	6ème	2,00	NA	8,89	16,20	17,00	4,94	yes	39,80	40,70	yes	15,35	16,00	4,23	yes	39,80	38,57	yes	3460	3450	-0,29	yes	YES	YES	YES
	7ème	2,00	NA	9,67	17,41	18,00	3,39	yes	39,80	43,74	yes	16,45	17,00	3,34	yes	39,80	41,33	yes	3480	3500	0,57	yes	YES	YES	YES
	8ème	2,00	NA	10,17	18,21	19,00	4,34	yes	39,80	45,75	yes	17,23	18,00	4,47	yes	39,80	43,29	yes	3505	3525	0,57	yes	YES	YES	YES
	2ēme	S.0	1,70	7,62	15,46	15,00	-2,98	yes	39,80	38,84	yes	4,93	4,80	-2,64	yes	39,80	12,39	yes	3145	3200	1,75	yes	YES	YES	YES
	3ème	2,20	NA	6,87	13,21	14,00	5,98	yes	39,80	33,19	yes	4,53	4,60	1,55	yes	39,80	11,38	yes	3280	3300	0,61	yes	YES	YES	YES
	4ème	2,20	NA	8,03	13,72	14,50	5,69	yes	39,80	34,47	yes	5,28	5,50	4,17	yes	39,80	13,27	yes	3340	3375	1,05	yes	YES	YES	YES
GP3	5ème	2,20	NA	8,27	13,87	15,00	8,15	yes	39,80	34,85	yes	5,34	5,70	6,74	yes	39,80	13,42	yes	3350	3400	1,49	yes	YES	YES	YES
	6ème	2,20	NA	8,64	14,86	15,75	5,99	yes	39,80	37,34	yes	5,41	5,90	9,06	yes	39,80	13,59	yes	3360	3420	1,79	yes	YES	YES	YES
	7ème	2,20	NA	9,26	15,63	16,50	5,57	yes	39,80	39,27	yes	5,14	5,60	8,95	yes	39,80	12,91	yes	3370	3430	1,78	yes	YES	YES	YES
	8ème	2,20	NA	9,59	16,38	17,00	3,79	yes	39,80	41,16	yes	5,73	6,00	4,71	yes	39,80	14,40	yes	3380	3450	2,07	yes	YES	YES	YES
	2éme	S.0	1,50	5,99	15,02	16,00	6,52	yes	39,80	37,74	yes	3,54	4,00	12,99	yes	39,80	8,89	yes	2715	2600	-4,24	yes	YES	YES	YES
	3ème	2,00	NA	6,90	12,54	14,00	11,64	yes	39,80	31,51	yes	2,71	3,00	10,70	yes	39,80	6,81	yes	2820	2700	-4,26	yes	YES	YES	YES
	4ème	2,00	NA	7,27	13,64	14,50	6,30	yes	39,80	34,27	yes	2,57	2,70	5,06	yes	39,80	6,46	yes	2850	2750	-3,51	yes	YES	YES	YES
GP4	5ème	2,00	NA	7,87	14,63	15,00	2,53	yes	39,80	36,76	yes	4,22	4,50	6,64	yes	39,80	10,60	yes	2970	2850	-4,04	yes	YES	YES	YES
	6ème	2,00	NA	9,11	15,14	15,50	2,38	yes	39,80	38,04	yes	3,82	4,00	4,71	yes	39,80	9,60	yes	3065	2925	-4,57	yes	YES	YES	YES
=	7ème	2,00	NA	9,63	15,92	16,00	0,50	yes	39,80	40,00	yes	3,88	4,25	9,54	yes	39,80	9,75	yes	3085	2950	-4,38	yes	YES	YES	YES
	8ème	2,00	NA	10,75	17,91	17,00	-5,08	yes	39,80	45,00	yes	4,58	4,50	-1,75	yes	39,80	11,51	yes	3145	3125	-0,64	yes	YES	YES	YES





Dynamic-Integrity-MULTIUSERS						Results														_					
Configuration	Lisers tested	Hdrop		Fmax anchor Maximum force on extremity n°1							Maximum force on extremity n°2 or after turn						Maxi	mum dynamio	deflecti	Mass	Mass	Conformi			
ooningurution	osci s lesieu	DCL9kN	D _{CL12kN}	measured	measured	predicted	gap	conformity	Fbreaking cable	gap	conformity	measured	predicted	gap	conformity	Fbreaking cable	gap	conformity	measured	predicted	gap	conformity	and kept	Mmax	Comornin
	2éme	S.O	1,70	9,28	15,44	16,50	6,87	yes	39,80	38,79	yes	14,89	16,00	7,45	yes	39,80	37,41	yes	855	900	5,26	yes	YES	YES	YES
	3ème	2,20	NA	7,91	13,84	15,00	8,38	yes	39,80	34,77	yes	13,33	14,00	5,03	yes	39,80	33,49	yes	855	900	5,26	yes	YES	YES	YES
	4ème	2,20	NA	8,01	14,22	15,50	9,00	yes	39,80	35,73	yes	13,67	14,30	4,61	yes	39,80	34,35	yes	855	900	5,26	yes	YES	YES	YES
PP1	5ème	2,20	NA	6,50	14,87	16,20	8,94	yes	39,80	37,36	yes	14,31	15,00	4,82	yes	39,80	35,95	yes	865	910	5,20	yes	YES	YES	YES
	6ème	2,20	NA	6,96	15,85	17,20	8,52	yes	39,80	39,82	yes	15,24	15,25	0,07	yes	39,80	38,29	yes	875	930	6,29	yes	YES	YES	YES
	7ème	2,20	NA	6,95	15,86	17,50	10,34	yes	39,80	39,85	yes	15,24	15,50	1,71	yes	39,80	38,29	yes	875	940	7,43	yes	YES	YES	YES
	8ème	2,20	NA	7,55	17,00	18,00	5,88	yes	39,80	42,71	yes	16,35	17,00	3,98	yes	39,80	41,08	yes	895	950	6,15	yes	YES	YES	YES
	2éme	S.0	1,50	8,08	14,64	14,00	-4,37	yes	39,80	36,78	yes	14,21	15,00	5,56	yes	39,80	35,70	yes	785	750	-4,46	yes	YES	YES	YES
PP2	3ême	2,00	NA	9,42	14,12	13,50	-4,39	yes	39,80	35,48	yes	13,59	14,50	6,70	yes	39,80	34,15	yes	820	800	-2,44	yes	YES	YES	YES
	4ème	2,00	NA	9,97	14,79	14,00	-5,34	yes	39,80	37,16	yes	14,23	15,00	5,41	yes	39,80	35,75	yes	820	810	-1,22	yes	YES	YES	YES
	5ême	2,00	NA	10,37	15,28	14,50	-5,10	yes	39,80	38,39	yes	14,68	15,50	5,59	yes	39,80	36,88	yes	840	850	1,19	yes	YES	YES	YES
	6ème	2,00	NA	10,90	15,48	14,80	<mark>-4,</mark> 39	yes	39,80	38,89	yes	14,94	16,00	7,10	yes	39,80	37,54	yes	885	870	-1,69	yes	YES	YES	YES
	7ème	2,00	NA	10,31	13,94	14,00	0,43	yes	39,80	35,03	yes	13,71	14,50	5,76	yes	39,80	34,45	yes	980	950	-3,06	yes	YES	YES	YES
	8ème	2,00	NA	10,97	13,66	13,50	-1,17	yes	39,80	34,32	yes	13,55	14,00	3,32	yes	39,80	34,05	yes	1100	1000	-9,09	yes	YES	YES	YES
	2éme	S.0	1,70	8,31	8,41	10,00	18,91	yes	39,80	21,13	yes	1,62	1,62							1150	-1,71	yes	YES	YES	YES
	3ème	2,20	NA	8,70	7,77	9,00	15,83	yes	39,80	19,52	yes	1,02							1170	1160	-0,85	yes	YES	YES	YES
	4ême	2,20	NA	7,92	8,92	10,50	17,71	yes	39,80	22,41	yes	1,09	1,09 1,06 NOT APLLICABLE							1170	-0,85	yes	YES	YES	YES
PP3	5ème	2,20	NA	7,85	9,11	10,70	17,45	yes	39,80	22,89	yes	1,06								1180	-0,84	yes	YES	YES	YES
	6ème	2,20	NA	8,36	9,25	10,90	17,84	yes	39,80	23,24	yes	1,02							1200	1190	-0,83	yes	YES	YES	YES
	7ème	2,20	NA	9,23	9,70	11,10	14,43	yes	39,80	24,37	yes	1,02	1,02 1210 1200 -0,83 yes 1 1,01 1220 1210 -0,82 yes							1200	-0,83	yes	YES	YES	YES
	8ème	2,20	NA	9,51	10,07	11,30	12,21	yes	39,80	25,30	yes	1,01								YES	YES	YES			
	2éme	S.O	1,50	10,16	12,26	11,00	-10,28	yes	39,80	30,80	yes	3,95	4,00	1,27	yes	39,80	9,92	yes	745	750	0,67	yes	YES	YES	YES
	3ème	2,00	NA	8,50	10,46	9,50	-9,18	yes	39,80	26,28	yes	2,62	3,00	14,50	yes	39,80	6,58	yes	745	750	0,67	yes	YES	YES	YES
	4ème	2,00	NA	8,86	10,64	9,80	-7,89	yes	39,80	26,73	yes	3,17	3,50	10,41	yes	39,80	7,96	yes	745	750	0,67	yes	YES	YES	YES
PP4	5ème	2,00	NA	9,47	11,50	10,50	-8,70	yes	39,80	28,89	yes	3,06	3,25	6,21	yes	39,80	7,69	yes	755	760	0,66	yes	YES	YES	YES
	6ème	2,00	NA	10,23	11,52	10,90	-5,38	yes	39,80	28,94	yes	3,04	3,20	5,26	yes	39,80	7,64	yes	765	770	0,65	yes	YES	YES	YES
	7ème	2,00	NA	10,88	12,53	11,30	-9,82	yes	39,80	31,48	yes	3,73	3,80	1,88	yes	39,80	9,37	yes	775	780	0,65	yes	YES	YES	YES
	8ème	2,00	NA	11,88	12,54	11,50	-8,29	yes	39,80	31,51	yes	3,50	3,60	2,86	yes	39,80	8,79	yes	785	790	0,64	yes	YES	YES	YES



Dyna	Dynamic-Integrity-MULTIUSERS Results								_															
	Users tested	Hdrop		Fmax anchor	ax anchor		Maximum force on extremity n°1			Maximum force on extremity n°2 or after turn						Maximum dynamic deflection			Mass	Mass				
Configuration		D _{CL9kN}	D _{CL12kN}	measured	measured	predicted	sted gap conformity Fbreaking cable		gap	conformity	measured	predicted	gap	conformit	Fbreaking cable	gap	conformity	measured	predicted	gap	conformity	and kept	Mmax	Conformity
	2éme	S.0	1,70	7,67	0,80						0,50											YES	YES	YES
VIRINT1	3ème	2,20	NA	6,01	0,00		NOT APLLICABLE					0,00		NOT APLLICABLE						YES	YES	YES		
	4ème	2,20	NA	9,47	0,00							0,00						NOTAPLICABLE			YES	YES	YES	
	5ème	2,20	NA	10,31	0,00							0,00									YES	YES	YES	
	6ème	2,20	NA	11,06	0,00							0,00							YES	YES	YES			
	7ème	2,20	NA	11,51	0,00						0,00								YES	YES	YES			
	8ème	2,20	NA	12,03	0,00														YES	YES	YES			
	2éme	S.0	1,70	11,17	5,50		Pa					5,69								YES	YES	YES		
	3ème	2,20	NA	9,90	4,66							4,66				YES	YES	YES						
	4ème	2,20	NA	10,27	4,72							4,77				YES	YES	YES						
VIREXT2	5ème	2,20	NA	10,19	4,72	NOT APLLICABLE				4,75		NOT APLLICABLE		NOT APLICABLE		YES	YES	YES						
	6ème	2,20	NA	11,15	4,99							5,09						YES	YES	YES				
	7ème	2,20	NA	11,76	5,19							5,34									YES	YES	YES	
	8ème	2,20	NA	12,39	5,39							5,69										YES	YES	YES
	2éme	S.0	1,50	12,05	1,87							2,43							YES	YES	YES			
	3ème	2,00	NA	10,19	1,41						2,12	2,12						YES	YES	YES				
	4ème	2,00	NA	10,30	1,53						2,15						YES	YES	YES					
VIROVERHEAD1	5ème	2,00	NA	9,90	1,48		NOT APLLICABLE					2,67		NOT APLLICABLE		NOT APLICABLE			YES	YES	YES			
	6ème	2,00	NA	12,03	1,62					3,03								YES	YES	YES				
	7ème	2,00	NA	12,79	1,69							3,20								YES	YES	YES		
	8ème	2,00	NA	13,38	1,70						3,23								YES	YES	YES			



Appendix 5 Static strength test EN 795:2012 and TS 16415:2013

STATIC	Partice	ularity	Force	Résults		
Configuration	Articulation of mobile anchor on turn	Articulation of mobile anchoron intermediaite anchor	F= 12 or 18kN 3 minutes	Conformity		
GP1	YES	YES	19 kN for 8 people	YES		
GP2	YES	YES	19 kN for 8 people	YES		
GP3	YES	YES	19 kN for 8 people	YES		
GP4	YES	YES	19 kN for 8 people	YES		
PP1	YES	YES	19 kN for 8 people	YES		
PP2	YES	YES	19 kN for 8 people	YES		
PP3	YES	YES	19 kN for 8 people	YES		
PP4	YES	YES	19 kN for 8 people	YES		
TURNINT1	YES	YES	19 kN for 8 people	YES		
TURNEXTT1	YES	YES	19 kN for 8 people	YES		
TURNOVERHEAD1	YES	YES	19 kN for 8 people	YES		