

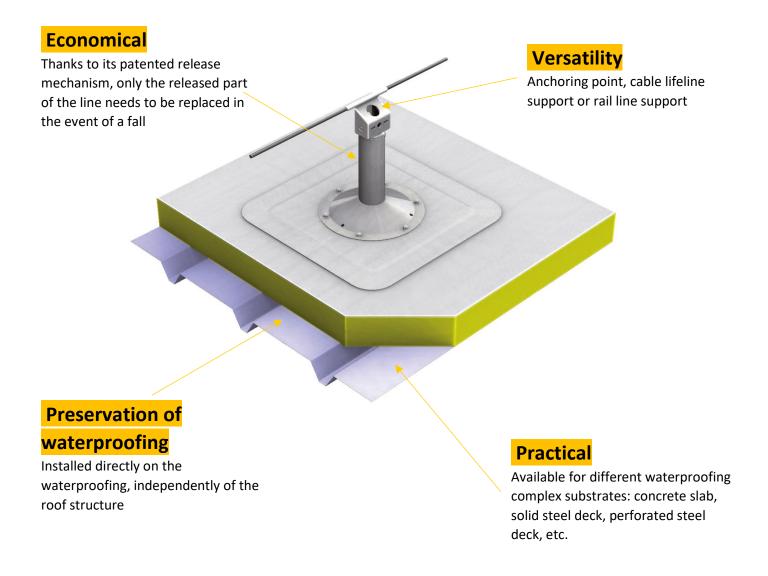


# Support & anchoring point

# **ALTIFIX**

#### **PRODUCT BENEFITS**

The ALTIFIX on PVC range is designed for installation on a PVC waterproofing complex. Versatile, it can be both an anchorage point and a support for a cable or rail lifeline. Its triggering bollard means that in the event of a fall, only the triggered part of the line is replaced, rather than the whole line.



# Support & anchoring point

# **ALTIFIX**

#### **PRESENTATION**

The Altifix PVC range is a versatile range of anchor points, cable lifeline supports and rail lifeline supports.

It has been designed to be installed on all types of roofs sealed with PVC membranes. The support for the waterproofing complex can be a steel sheet with a minimum thickness of 0.75 mm or concrete (thickness compatible with an anchor allowing a pull-out strength of 1000 daN.

#### **TECHNICAL SPECIFICATIONS**

- Post material: 304 stainless steel.
- Compatible with all types of steel sheets with a trapezoidal or sinusoidal profile, minimum thickness 75/100 and fixed in accordance with current standards. Wave spacing: 250, 280, 304 and 333mm.
- Compatible with OSB or CTBH roofs with a minimum thickness of 22 mm.
- Compatible with concrete substrates.

#### **CONFORMITY & MARKING**

Product marking in accordance with standard EN 365 WVAFXPVC and WVAFXPVCPA products comply with the:

- Standard EN 795 : 2012 Type A.
- CEN/TS 16415:2013

#### Type tests carried out by:

APAVE

17 Bd Paul Langevin - 38600 Fontaine

ALPES CONTROLES office

367 Av du Grand Arietaz - 73000 Chambéry

#### **REMINDER OF STANDARDS**

Only when it is technically impossible to provide collective protection can individual protection against falls from height be considered (French Labour Code R4323-61).

Personal protective equipment can also be used as a complement to collective protection. The use of this type of protection imposes organisational constraints, in particular:

- defining, installing and choosing the type of equipment (lifeline, anchorage point, etc.),
- work with at least two people,
- definition of an emergency response plan,
- installation and use instructions,
- staff information and training,
- periodic inspections,
- weather conditions.

# As a reminder, extract from recommendation R430 - INRS/CNAMTS:

For buildings to be constructed of any kind, technical provisions to facilitate the prevention of falls from height during subsequent work on the building must be provided for at the design stage.

The ground of technical impossibility cannot therefore be accepted, as it is now up to the project owner to modify his project so that no situation remains that cannot be properly resolved, at least, by the implementation of collective protection.



# Technical documentation

Support & anchor point

# Altifix on PVC roofing Anchor point or lifeline support

**WVAFXBACPRFPVC** 



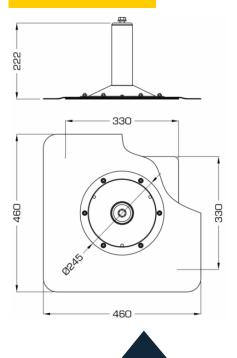
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# PRODUCT ADVANTAGES

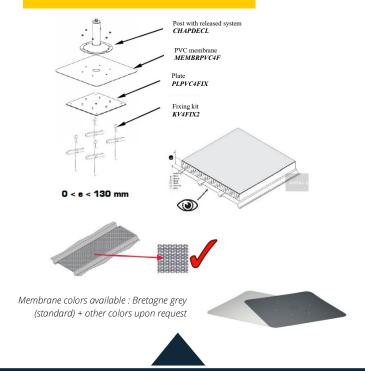
- Installation independent from framework.
- No damage to roof integrity nor compromise on guarantee.
- Simplified waterproofing process.
- The post can be replaced without any operation on the waterproofing.
- In the event of fall, the top part of the post will lay down to reduce the loads generated on the structure and fixings.



### **PRODUCT PLAN**



#### **INSTALLATION PRINCIPLE**



#### **TECHNICAL FEATURES**

- Hat material properties: stainless steel
- Plate material properties: galvanised steel
- Weight: 6.0 kg

- Installation directly on the waterproofed membane.
- Designed for perforated decks.
- Associated fixing kit:
   Ref. KV.4FIX(x) for fixing on perforated steel deck



# **Technical** documentation

Support & anchor point

# **Altifix on PVC roofing Anchor point & lifeline support**

**WVAFXPVC** 



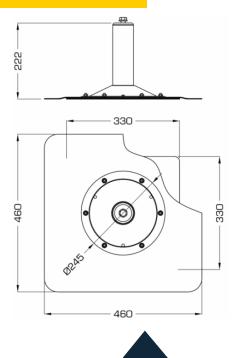
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### **PRODUCT ADVANTAGES**

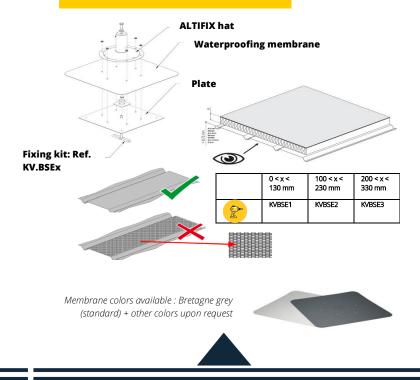
- Installation independent from the framework
- No damage to roof integrity nor compromise on guarantee
- Simplified waterproofing process
- If a fall occurs, the upper part of the post will lie down to limit stresses on the structure and fasteners
- Post can be replaced without hindering the waterproofing integrity



### **PRODUCT PLAN**



#### **INSTALLATION PRINCIPLE**



#### **TECHNICAL FEATURES**

- Hat material properties: stainless steel
- Plate material properties: galvanized steel
- Weight: 4.360 kg

- Directly fixed on the waterproofing membrane.
- A central fixation insures the link with support of the complex (steel or concrete).
- Fixing kits (not included):
  - Ref.: KV.BSE1, KV.BSE2 or KV.BSE3 for fixation on full
  - Ref.: ANCR.AFX for fixation on concrete (thickness: 160mm min)
- On end-support or lifeline angle, anticipate reinforcement
  - Waterproofing support tray ref.: KVR.BAC / KVR.BAC2 / KVR.BAC3
  - On electropolished slab ref.: AFX\_PVC-EP (delivered without membrane)

# **Technical** documentation

# Support & anchor point

### **Altifix on PVC roofing Anchor point**

**WVAFXPVCPA** 



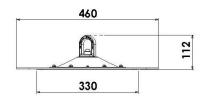
Ind. Nov. 2203

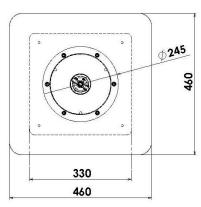
### **PRODUCT ADVANTAGES**

- Can be used in all directions thanks to the rotating anchor ring
- Installation independent from the framework
- No damage to roof integrity nor compromise on guarantee
- Simplified waterproofing process

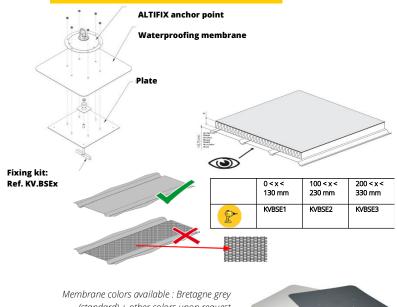


#### **PRODUCT PLAN**





### **INSTALLATION PRINCIPLE**



(standard) + other colors upon request



### **TECHNICAL FEATURES**

- Material properties hat: stainless steel
- Material properties plate: galvanized steel
- Material properties ring: coper-aluminium
- Weight: 3.320 kg
- Standard compliance: EN 795 Type A1

- Installation directly on the waterproofed membrane
- Link between post and structure (steel or concrete) guaranteed with a central fixing
- Fixing kits (not included):
  - o ref.: KV.BSEx for steel deck (without standing seams)
  - o ref.: ANCR.AFX for concrete (thickness 120mm min – insulation thickness 160mm max)
- Available in electro-polished finish ref: AFX\_PVC-PA-EP (membrane not included)



# Technical documentation

# Support & anchor point

# Altifix on PVC roofing Anchor point

WVAFXPVCPA2



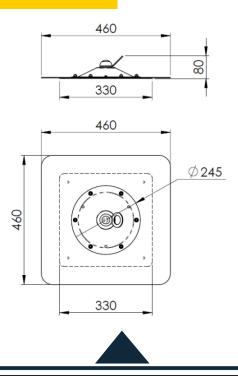
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# **PRODUCT ADVANTAGES**

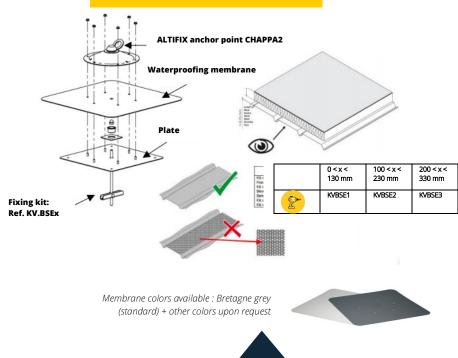
- Can be used in all directions thanks to the rotating anchor ring
- Installation independent from the framework
- No damage to roof integrity nor compromise on guarantee
- Simplified waterproofing process



#### **PRODUCT PLAN**



### **INSTALLATION PRINCIPLE**



### **TECHNICAL FEATURES**

- Material properties hat: stainless steel
- Material properties plate: galvanized steel
- Material properties ring: stainless steel
- Weight: 3.320 kg
- Standard compliance: EN 795 Type A1

- Installation directly on the waterproofed membrane
- Link between post and structure (steel or concrete) guaranteed with a central fixing
- Fixing kits (not included):
  - o ref.: KV.BSEx for steel deck (without standing seams)
  - o ref.: ANCR.AFX for concrete (thickness 120mm min – insulation thickness 160mm max)



# Technical documentation

Support & anchor point

### Altifix on PVC roofing Rail support

**WVRAFXPVC** 



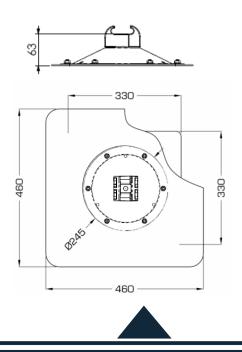
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### **PRODUCT ADVANTAGES**

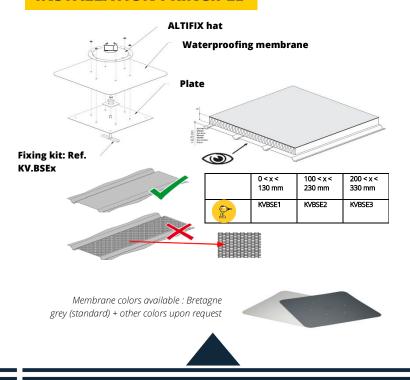
- Independant installation from the framework.
- Installation without intervention on the underside.
- Simplified anchor post waterproofing process.



#### **PRODUCT PLAN**



#### **INSTALLATION PRINCIPLE**



### **TECHNICAL FEATURES**

- Hat material properties: stainless steel
- Plate material properties: galvanized steel
- Weight: 4.360 kg

- Directly fixed on the waterproofing membrane.
- A central fixation insures the link with support of the complex (steel or concrete).
- Fixing kits (not included):
  - Ref.: KV.BSE1, KV.BSE2 or KV.BSE3 for fixation on full steel tray
  - Ref.: ANCR.AFX for fixation on concrete (thickness : 160mm min)
- On end-support or lifeline angle, anticipate reinforcement screw kit:
  - Waterproofing support tray ref.: KVR.BAC / KVR.BAC2 /
  - On electropolished slab ref.: AFX\_PVC-EP (delivered without membrane)







Centre d'Essais de Fontaine 17, Boulevard Paul Langevin 38600 FONTAINE - France Tél. +33.(0)4.76.53.52.22 Fax +33.(0)4.76.53.32.40

### ATTESTATION DE CONFORMITE N° AT4749395-4

#### Demandeur

Demandeur: Monsieur Rodolphe ARGOUD

Raison sociale: VERTIC SAS - Parc Technologique - 691 Chemin des fontaines - CIDEX 8F

38190 Bernin - vertic@vertic.fr

#### 2. Matériel considéré

Fabricant: VERTIC

Référence : Ancrage Tournant sur Toiture étanchée PVC AFX\_PVC-PA + KV.4FIX2

Type d'équipement : Dispositifs d'ancrages Norme NF EN 795 Classe A1

#### 3. Description / Nomenclature

Les éléments constitutifs d'un ancrage AFX\_PVC-PA + KV.4FIX2 sont :

Kit de fixation 4 ancrages pour bac perforé en plage Réf : KV.4FIX2

Sous-Ensemble Chapeau + Anneau Tournant Réf : CHAP.PA

Sous-Ensemble Plateau avec 4 trous Ø 10mm Réf : PL\_PVC4FIX

Sous-Ensemble Membrane PVC Réf : MEMBR.PVC4FIX

Les caractéristiques du bac support sont :

Bac Acier de type 1010.4.42N perforé en plage

Entraxe des ondes 252.5mm

Epaisseur: 0.75 mm

Description détaillée dans le dossier technique de l'ancrage AFX\_PVC-PA + KV.4FIX2 rédigé par Sylvain MANON (VERTIC SAS).

#### Référentiel

Le système d'ancrage AFX\_PVC-PA + KV.4FIX2 est testé suivant la méthodologie d'essai décrite dans la Norme NF ÉN 795 Classe A1 de Septembre 1996, à savoir un test dynamique (Chute d'une masse de 100 kg sur 2.5 mètres) et un test statique (Maintien à 10 kN pendant 3 minutes).

#### 5. Conclusion

Le système d'ancrage AFX\_PVC-PA + KV.4FIX2 a subi avec succès les essais dynamiques et statiques de la Norme NF EN 795 Classe A1 de Septembre 1996. Chaque essai a été effectué dans le sens parallèle et perpendiculaire aux nervures des bacs. Le test statique a été poussé jusqu'à une valeur de 12 kN. Le système d'ancrage AFX\_PVC-PA + KV.4FIX2 est conforme aux exigences de la Norme NF EN 795 Classe A1 de Septembre 1996

> Le 17 juillet 2009 Le Chargé d'Affaires

Guillaume QUINTIN

Cette attestation comporte une page. Elle est établie en deux exemplaires originaux transmis au demandeur. Aucun duplicata ne sera délivré

Cette attestation ne constitue pas le justificatif prévu par le code de la consommation ( article L-115-27 ) par lequel un organisme distinct du fabricant atteste à des fins commerciales qu'un produit est conforme à des caractéristiques dans un référentiel déposé auprès de l'autorité administrative

CETE APAVE SUDEUROPE

Société par Actions Simplifée au Capital de 3 060 000 € - № SIREN : 775 581 812 - Site Internet : www.apave.com Locataire-gérant du fonds de commerce du CETE APAVE Lyonnaise

LYON

177 route de Sain Bel BP 3 69811 TASSIN CEDEX Tél.: 04 72 32 52 52 - Fax: 04 72 32 52 00

### BORDEAUX

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### Z.L. avanue Gay Lussac

### Z.L. avanue Gay Lussac

### Z.L. avanue Gay Lussac

### BP 3

### STORE AND TO BE AN







tre d'Essais de Fonta 17, Boulevard Paul Langevir 38600 FONTAINE - France Tél. +33.(0)4.76.53.52.22 Fax +33.(0)4.76.53.32.40 Lab38meca@apave.com

### ATTESTATION DE CONFORMITE N° AT4749395-5

#### 1. Demandeur

Demandeur: Monsieur Rodolphe ARGOUD

Raison sociale: VERTIC SAS - Parc Technologique - 691 Chemin des fontaines - CIDEX 8F

38190 Bernin - vertic@vertic.fr

#### 2. Matériel considéré

Fabricant: VERTIC

Référence : Potelet d'ancrage ALTIFIX sur Toiture étanchée PVC AFX\_PVC + KV.4FIX2

Type d'équipement : Dispositifs d'ancrages Norme NF EN 795 Classe A1

#### 3. Description / Nomenclature

Les éléments constitutifs d'un potelet d'ancrage AFX\_PVC + KV.4FIX2 sont :

- Kit de fixation 4 ancrages pour bac perforé en plage Réf : KV.4FIX2
- Sous-Ensemble Chapeau + Déclencheur ALTIFIX Réf : CHAP.DECL
- Sous-Ensemble Plateau avec 4 trous Ø 10mm Réf : PL\_PVC4FIX
- Sous-Ensemble Membrane PVC Réf: MEMBR.PVC4FIX

Les caractéristiques du bac support sont :

- Bac Acier de type 1010.4.42N perforé en plage
- Entraxe des ondes 252.5mm
- Epaisseur: 0.75 mm

Description détaillée dans le dossier technique de l'ancrage AFX\_PVC + KV.4FIX2 rédigé par Sylvain MANON (VERTIC SAS).

#### 4. Référentiel

Le système d'ancrage AFX\_PVC + KV.4FIX2 est testé suivant la méthodologie d'essai décrite dans la Norme NF EN 795 Classe A1 de Septembre 1996, à savoir un test dynamique (Chute d'une masse de 100 kg sur 2.5 mètres) et un test statique (Maintien à 10 kN pendant 3 minutes).

#### 5. Conclusion

Le système d'ancrage AFX\_PVC + KV.4FIX2 a subi avec succès les essais dynamiques et statiques de la Norme NF EN 795 Classe A1 de Septembre 1996. Chaque essai a été effectué dans le sens parallèle et perpendiculaire aux nervures des bacs. Le test statique a été poussé jusqu'à une valeur de 14 kN.

Le système d'ancrage AFX\_PVC + KV.4FIX2 est conforme aux exigences de la Norme NF EN 795 Classe A1 de Septembre 1996

> Le 17 juillet 2009 Le Chargé d'Affaires

Guillaume QUINTIN

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CETE APAVE SUDEUROPE

Société par Actions Simplifiée au Capital de 3 060 000 € - № SIREN : 775 581 812 - Size Internet : www.apiave.com
Locateire-gérant du fonds de commerce du CETE APAVE Lyonnaise

SEGE SOCIAL.

MARSEILLE 177 route de Sain Bel BP 3 69811 TASSIN CEDEX '2 32 52 52 - Fax: 04 72 32 52 00

BORDEAUX 8 rus Jean-Jacques Vernazza Z.I. avenue Gay Lussao Z.A.C. Saumaty-Saon – BP 193 13322 MARSEILLE CEDEX 16 33370 ARTIGUES-près-BORDEAUX Tél.: 04 96 15 22 60 - Fax: 04 96 15 22 61 Tél.: 05 56 77 27 27 - Fax: 05 56 77 27 00

**DELTAPLUS** 





Centre d'Essais de Fe 17, Boulevard Paul Langev 38600 FONTAINE - France Tél. +33,(0)4,76,53,52,22 Fax +33.(0)4.76.53.32.40 Lab38meca@apave.co

### ATTESTATION CONFORMITE N° AT4403332-1

#### I.DEMANDEUR

Demandeur : Monsieur Sylvain MANON

Raison sociale: VERTIC - chemin des Fontaines - CIDEX 8F - 38 190 BERNIN - vertic@vertic.fr

#### II. MATERIEL CONSIDERE

> Fabricant:

➢ Référence Type d'équipement : Ancrage Tournant sur support en Panneau CTBH 22 mm AFX-CTBH22.PA

टाक्षा ग्रह तथा

Dispositifs d'ancrages Norme NF EN 795 Classe A1 Sept. 96

#### III. DESCRIPTION

L'ancrage AFX-CTBH22.PA se compose des éléments suivants :

Plateau AFX\_PVC - Référence : 290338 Membrane PVC - Référence : 290313

Contre-Platine acier galvanisée - Référence : 290306

Vis à bois 5x16 - Référence : BVB01

Chapeau embouti Inox - Référence : 290319

Anneau d'ancrage - Référence : PEX.AFX

Renfort Chapeau + Vis soudée - Référence : 700403

Ecrou à embase M6 - Référence : BEEC01

Rondelle PA6 62x12x1.5 - Référence : 290353

Entretoise Cupro-Aluminium - Référence : 290354

Etiquette de marquage PEX.AFX - Référence : 290352

Ecrou-frein M10 Zingué - Référence : BE013

Rondelle Inox M10 Etroite - Référence : BR006

Cache-Ecrou plastique - Référence : A0030

Kit de fixation avec balancier- Référence : KV-AFX

Description détaillée dans le dossier technique de l'ancrage AFX-CTBH22.PA rédigé par Sylvain MANON (VERTIC SAS).

#### IV. REFERENTIEL

Le système d'ancrage AFX\_CTBH22-PA est testé suivant la méthodologie d'essai décrite dans la Norme NF EN 795 Classe A1 de Septembre 1996, à savoir un test dynamique (Chute d'une masse de 100 kg sur 2.5 mètres) et un test statique (Maintien à 10 kN pendant 3 minutes).

Le système d'ancrage AFX\_CTBH22-PA a subi avec succès les essais dynamiques et statiques de la Norme sur un panneau bois aggloméré CTBH d'épaisseur 22mm recouvert d'une membrane d'étanchéité PVC. Le test statique a été poussé jusqu'à une valeur de 12 kN. Le système d'ancrage AFX-CTBH22-PA est conforme aux exigences de la Norme NF EN 795 Classe A1 de Septembre 1996.

Le 12 novembre 2008 Le Chargé d'Affaires

C.

Guillaume QUINTIN

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CETE APAVE SUDEUROPE

Société per Actions Simplifiée au Capital de 3 060 000 € - N° SIREN : 775 581 812 - Site Internet : www.apave.com Locataire-gérant du fonds de commerce du CETE APAVE Lycnneise

LYON 177 route de Sain Bel BP 3 69811 TASSIN CEDEX Tél.: 04 72 32 52 52 - Fax: 04 72 32 52 00

MARSEILLE Z.A.C. Saumaty-Séon – BP 193 13322 MARSEILLE CEDEX 16

BORDEAUX ue Gay Lus BP 3 33370 ARTIGUES-près-BORDEAUX Tél.: 04 96 15 22 60 - Fax: 04 96 15 22 61 Tél.: 05 56 77 27 27 - Fax: 05 56 77 27 00







#### **Bureau Alpes Contrôles**

367 av du grand Ariétaz 73000 Chambery - FRANCE Tél: +33 (0)4 79 68 77 30 - Fax: +33 (0)9 72 37 15 54 bac.chambery@alpes-controles.fr

### CONFORMITY CERTIFICATE to the static and dynamic tests according to

FprEN 795:2012 F

CEN/TS 16415:2013 E

#### I. APPLICANT

Name: Mr ARGOUD

Company: VERTIC - 691, Chemin des fontaines - CIDEX 8F - 38190 BERNIN - France

#### II. CONSIDERED EQUIPMENT

VERTIC ALTIFIX Trade mark: Type of Equipment: Type A anchor device

AFX\_PVC Reference:

#### III. REFERENTIAL

The device has been tested according to the method described in chapters §5.3.2, §5.3.3 and §5.3.4 of the document FprEN 795:2012 F as well as chapters §5.2.2 and §5.2.3 of the technical specification CEN/TS 16415:2013 E.

#### IV. CONDITION FOR USE

- This device is not considered as personal protective equipment (P.P.E.) against falls from a height.
- This device is designed to be used with personal protective equipment (P.P.E.) against falls from a height, in the longitudinal direction of the steel deck ribs.
- Designed to be fixed on vertical, horizontal or sloped surfaces.
- The AFX\_PVC device is only intended to be installed on minimum thickness of 0.75 mm trapezoidal wave form steel tray roof cover, with 300mm maximum insulation and covered by a single layer of PVC membrane.

#### V. DESCRIPTION

A detailed description of the equipment AFX\_PVC is provided in the document « ALTIFIX® ancrage pour toitures BBC » written by Mr Cipriani and dated 03/01/2014.

#### VI. CONCLUSION

A sample of an AFX\_PVC anchor device, built by VERTIC Company, successfully passed the static and dynamic tests carried out on the 21/11/2013. These devices complies with the requirements of chapters §5.3.2, §5.3.3 and §5.3.4 of the document FprEN 795:2012 F as well as chapters §5.2.2 and §5.2.3 of the technical specification CEN/TS 16415:2013 E.

Chambery (FRANCE), 26/02/2014.

The inspector, Mr Sylvain PERRIN



SPN/730X000A-3a/SPN

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Bureau Alpes Contrôles - SAS au capital de 500 000 € - SIREN : 351 812 698 - APE : 7120B - Id. TVA : FR 21 351 812 698

Head Office : 3, impasse des Prairies - PAE Les Glaisins - 74940 ANNECY LE VIEUX - FRANCE

Tél. : +33 (0)4 50 64 06 75 - Fax : +33 (0)4 50 64 06 02 - contact@alpes-controles.fr - www.alpes-controles.fr







#### **Bureau Alpes Contrôles**

367 av du grand Ariétaz 73000 Chambery - FRANCE Tél: +33 (0)4 79 68 77 30 - Fax: +33 (0)9 72 37 15 54 bac.chambery@alpes-controles.fr

# to the static and dynamic tests according to NF EN 795:1996 + A1:2000

#### I. APPLICANT

Name: Mr ARGOUD

Company: VERTIC - 691, Chemin des fontaines - CIDEX 8F - 38190 BERNIN - France

#### II. CONSIDERED EQUIPMENT

Trade mark: VERTIC ALTIFIX
Type of Equipment: Type A anchor device

Reference : AFX\_PVC

#### III. REFERENTIAL

The device has been tested according to the method described in chapters §5.2.1, §5.2.2, §5.3.2 and §5.3.3 of the standard NF EN 795:1996 + A1:2000.

#### IV. CONDITION FOR USE

- · This device is not considered as personal protective equipment (P.P.E.) against falls from a height.
- This device is designed to be used with personal protective equipment (P.P.E.) against falls from a height, in the longitudinal direction of the steel deck ribs.
- Designed to be fixed on vertical, horizontal or sloped surfaces.
- The AFX\_PVC device is only intended to be installed on minimum thickness of 0.75 mm trapezoidal wave form steel tray roof cover, with 300mm maximum insulation and covered by a single layer of PVC membrane.

#### V. DESCRIPTION

A detailed description of the equipment AFX\_PVC is provided in the document « ALTIFIX® ancrage pour toitures BBC » written by Mr Cipriani and dated 03/01/2014.

#### VI. CONCLUSION

A sample of an AFX\_PVC anchor device, built by VERTIC Company, successfully passed the static and dynamic tests carried out on the 21/11/2013. These devices complies with the requirements of chapters §5.2.1, §5.2.2, §5.3.2 and §5.3.3 of the standard NF EN 795:1996 + A1:2000.

Chambery (FRANCE), 26/02/2014.

The inspector,

Mr Sylvain PERRIN



SPN/730X000A-3b/SPN

Page 1/1

ureau Alpes Contrôles - SAS au capital de 500 000 € - SIREN : 351 812 698 - APE : 7120B - Id. TVA : FR 21 351 812 698

Head Office : 3, impasse des Prairies - PAE Les Glaisins - 74940 ANNECY LE VIEUX - FRANCE

Tél. : +33 (0)4 50 64 06 75 - Fax : +33 (0)4 50 64 06 02 - contact@alpes-controles.fr - www.alpes-controles.fr







#### **Bureau Alpes Contrôles**

367 av du grand Ariétaz 73000 Chambery - FRANCE

Tél: +33 (0)4 79 68 77 30 - Fax: +33 (0)9 72 37 15 54

bac.chambery@alpes-controles.fr

# CONFORMITY CERTIFICATE to the static and dynamic tests according to

FprEN 795:2012 F

- CEN/TS 16415:2013 E

#### I. APPLICANT

Name: Mr ARGOUD

Company: VERTIC - 691, Chemin des fontaines - CIDEX 8F - 38190 BERNIN - France

#### II. CONSIDERED EQUIPMENT

Trade mark: VERTIC ALTIFIX
Type of Equipment: Type A anchor device
Reference : AFX\_PVC-PA

#### III. REFERENTIAL

The device has been tested according to the method described in chapters §5.3.2, §5.3.3 and §5.3.4 of the document FprEN 795:2012 F as well as chapters §5.2.2 and §5.2.3 of the technical specification CEN/TS 16415:2013 E.

#### IV. CONDITION FOR USE

- This device is not considered as personal protective equipment (P.P.E.) against falls from a height.
- This device is designed to be used with personal protective equipment (P.P.E.) against falls from a height, in the longitudinal direction of the steel deck ribs.
- Designed to be fixed on vertical, horizontal or sloped surfaces.
- The AFX\_PVC-PA device is only intended to be installed on minimum thickness of 0.75 mm trapezoidal wave form steel tray roof cover, with 300mm maximum insulation and covered by a single layer of PVC membrane.

#### V. DESCRIPTION

A detailed description of the equipment AFX\_PVC-PA is provided in the document « ALTIFIX® ancrage pour toitures BBC » written by Mr Cipriani and dated 03/01/2014.

#### VI. CONCLUSION

A sample of an AFX\_PVC-PA anchor device, built by VERTIC Company, successfully passed the static and dynamic tests carried out on the 21/11/2013. These devices complies with the requirements of chapters §5.3.2, §5.3.3 and §5.3.4 of the document FprEN 795:2012 F as well as chapters §5.2.2 and §5.2.3 of the technical specification CEN/TS 16415:2013 E.

Chambery (FRANCE), 26/02/2014.

The inspector,

Mr Sylvain PERRIN



SPN/730X000A-2a/SPN

Page 1/1

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Head Office : 3, impasse des Prairies - PAE Les Glaisins - 74940 ANNECY LE VIEUX - FRANCE

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# Certificate of conformity

#### **Distributed by**



#### **Bureau Alpes Contrôles**

367 av du grand Ariétaz 73000 Chambery - FRANCE Tél: +33 (0)4 79 68 77 30 - Fax: +33 (0)9 72 37 15 54 bac.chambery@alpes-controles.fr

### CONFORMITY CERTIFICATE to the static and dynamic tests according to NF EN 795:1996 + A1:2000

#### I. APPLICANT

Name: Mr ARGOUD

Company: VERTIC - 691, Chemin des fontaines - CIDEX 8F - 38190 BERNIN - France

#### II. CONSIDERED EQUIPMENT

Trade mark: VERTIC ALTIFIX
Type of Equipment: Type A anchor device
Reference : AFX\_PVC-PA

#### III. REFERENTIAL

The device has been tested according to the method described in chapters §5.2.1, §5.2.2, §5.3.2 and §5.3.3 of the standard NF EN 795:1996 + A1:2000.

#### IV. CONDITION FOR USE

- This device is not considered as personal protective equipment (P.P.E.) against falls from a height.
- This device is designed to be used with personal protective equipment (P.P.E.) against falls from a height, in the longitudinal direction of the steel deck ribs.
- Designed to be fixed on vertical, horizontal or sloped surfaces.
- The AFX\_PVC-PA device is only intended to be installed on minimum thickness of 0.75 mm trapezoidal wave form steel tray roof cover, with 300mm maximum insulation and covered by a single layer of PVC membrane.

#### V. DESCRIPTION

A detailed description of the equipment AFX\_PVC-PA is provided in the document « ALTIFIX® ancrage pour toitures BBC » written by Mr Cipriani and dated 03/01/2014.

#### VI. CONCLUSION

A sample of an AFX\_PVC-PA anchor device, built by VERTIC Company, successfully passed the static and dynamic tests carried out on the 21/11/2013. These devices complies with the requirements of chapters §5.2.1, §5.2.2, §5.3.2 and §5.3.3 of the standard NF EN 795:1996 + A1:2000.

Chambery (FRANCE), 26/02/2014.

The inspector,

Mr Sylvain PERRIN



SPN/730X000A-4b/SPN

Page 1/1

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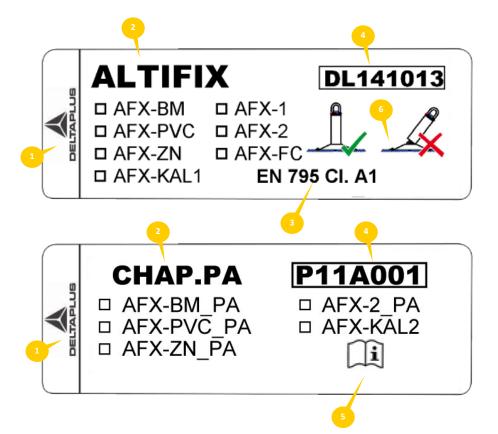


# Support & anchoring point

# **ALTIFIX**

#### Product marking in compliance with EN 365

- 1 Manufacturer's name
- Product name / Reference(s)
- 3 Standards to which the product conforms
- 4 Batch number
- Pictogram inviting you to read the instructions
- Pictogram warning not to use the product if it is triggered
- 7 Maximum number of people authorised to connect simultaneously
- 8 Date of manufacture of the ring









# Support & anchoring point

# **ALTIFIX**

#### **Information**

This manual is intended for users and installers of WVAFXPVC, WVAFXPVCPA and WVRAFXPVC products. It must be read and understood by each person before using and/or installing the product. If you have any doubts, problems of understanding, or if a problem arises which is not dealt with in this document, contact your Delta Plus Systems representative or the Delta Plus Systems technical service directly.

These instructions must always be available and accessible to the user. Any activity at height is dangerous and may cause accidents, serious injury or death. You are responsible for practising and learning the techniques for using the appropriate equipment. Before using the product, you must therefore read and understand all the information contained in the instruction manual. Failure to heed any of these warnings could result in serious injury or death. For safety reasons, the user must be in good health and not be under the influence of medication, alcohol or drugs.

This equipment must only be used by people who are trained and competent to use it safely. The use of these products is strictly forbidden if they are incorrectly installed or damaged. No modification of or addition to the equipment may be made without the prior written consent of Delta Plus Systems, and any repairs must be carried out in accordance with Delta Plus Systems operating procedures.

These products must not be used beyond their limits, or in any other unforeseen situation.

Before any use of the anchor, a rescue plan must be put in place to deal with any emergencies that may arise during work. Before and during use, consideration should of course be given to ensuring that any such rescue can be carried out safely and effectively.

#### Instructions for use

The Altifix on PVC range is designed to be installed on all roofs sealed with PVC membranes. The support for the waterproofing complex can be a steel sheet with a minimum thickness of 0.75 mm or concrete (thickness compatible with an anchor allowing a pull-out strength of 1000 daN.

WVAFXPVCPA or WVAFXPVC anchors are suitable for use by a single person with the following authorised connections:

- Guided type fall arresters EN353-2
- Automatic fall arresters EN360
- Energy absorber EN355

Authorised connections must be made to the person using a fall arrest harness complying with EN Standard 361.

The fall arrest harness is the only body-gripping device permitted to be used in a fall arrest system. The WVAFXPVC anchoring point is fitted with a system that is triggered in the event of a fall. The body of the post tilts along the axis of the fall and absorbs part of the energy to protect the roof.

The WVAFXPVC post can be used as a Delta Plus Systems lifeline support fitted with an energy absorber (Ref. WVABS55) to limit the force at the end in the event of a fall.

The WVCHAPRSUP support can be used as a Delta Plus Systems rail lifeline support.



# Support & anchoring point

# **ALTIFIX**

#### **Important - Prevention before use**

Visually check that the anchor is in good condition:

- No permanent deformation of the anchoring ring
- No trace of corrosion
- Fasteners in good condition (nuts tightened, etc.).
- The AFX\_PVC is fitted with a release system. If the body is not fully and firmly in contact with the plate supporting it, this means that a significant stress has occurred. Do not use the anchorage point until it has been checked and repaired by a competent person authorised by Delta Plus Systems.

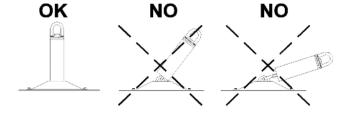
At height, your life depends on the equipment used. Any doubts as to the safety of the device should be reported to the manufacturer and to the person responsible for the installation. If the bollard is struck, do not use the product again until it has been checked and brought back into compliance by a competent person authorised by the manufacturer.

environment of use: aggressive environments, marine environment, sharp edges, extreme temperatures, chemicals, etc.).

A product must be scrapped when:

- It is over 10 years old and made of plastic or textile.
- The result of the product checks is not satisfactory.
- You have doubts about its reliability.
- You don't know its full history of use.
- Its use is obsolete (changes in legislation, standards, technology or incompatibility with other equipment, etc.).

Destroy these products to prevent future use.



#### **Service life - Disposal**

For Delta Plus Systems products, plastics and textiles, the maximum service life is 10 years from the date of manufacture, with the exception of the WVABS55 reference, as long as an annual inspection is carried out. There is no limit for metal products.

ATTENTION, an exceptional event may lead you to reject a product after a single use (type and intensity of use),





# Support & anchoring point

### **ALTIFIX**

#### **Maintenance and servicing**

Any modification or addition to the equipment without the prior written consent of the manufacturer is prohibited.

Any repairs to system components must be carried out in accordance with Delta Plus Systems procedures. If in doubt about the condition of the product, replace it with an original Delta Plus Systems part.

A soiled product must be washed and rinsed with clean water, then dried. It must not be brought into contact with corrosive or aggressive materials, or stored at extreme temperatures. All chemical products and solvents can alter the resistance of the system components. If the product is likely to come into contact with these products, please let us know the exact name of the chemical components and we will reply after an appropriate study. It is known that equipment in use degrades progressively and it is therefore difficult to give a precise lifespan to the product without knowing the intensity and frequency of use. Similarly, an exceptional situation may limit the lifespan to a single use. Certain environments accelerate product ageing (salt, sand, snow, chemical environment, etc.) (non-exhaustive list).

The condition of the product must be checked at least every 12 months by an authorised and competent person in strict compliance with Delta Plus Systems operating procedures. These periodic and regular examinations are necessary because the safety of the user is linked to the maintenance of the efficiency and resistance of the equipment.

Checks should include: general good condition, condition of fasteners, tightening torque, legibility of markings, etc.

The inspection and the results must be recorded in writing in a maintenance log using the identification and inspection sheet supplied by Delta Plus Systems. Repairs to products in the Altifix PVC range are prohibited. If in doubt about the condition of the product, replace it with an original Delta Plus Systems part.

Our Delta Plus Training centre can train you in all these maintenance, overhaul and repair operations for Delta Plus Systems products and also carries out all these maintenance operations.

Delta Plus Systems can also help you check, inspect and maintain your permanent fall arrest and PPE safety systems. You can also ensure that your teams are fully conversant with the use of these fall arrest solutions and the basic concepts they need to know to work safely at height, by offering them comprehensive, customised training courses run by our training centre.



Delta Plus Training - 691, Chemin des Fontaines - Cidex 8F - 38190 BERNIN - France





# Support & anchoring point

# **ALTIFIX**

#### **Installation**

For safety reasons, it is essential that the anchorage point is always correctly positioned and that the work is carried out in such a way as to minimise the risk of falls and the height of fall. It is also important to check that there is sufficient clearance below the user in the workplace, so that in the event of a fall there is no collision with the ground, and no other obstacle in the path of the fall. The anchorage must therefore be installed with all these safety parameters in mind. The product must be installed by installers approved or trained by Delta Plus Systems. Installers must ensure that the support materials in which the structural anchoring devices are fixed are suitable. A qualified engineer should verify by calculation that the design and installation data are compatible with the force applied in the type test. The suitability of structural materials should be verified by the installer by testing a sample of the material. It is recommended that each structural anchor, once fixed in the material under consideration, be subjected to an axial tensile force of 5KN. The load should be maintained for at least 15 seconds.

Delta Plus Systems cannot be held responsible for incorrect installation of the anchoring point

A schematic plan should be affixed to the building so that it is visible to all.

Where several anchor points are to be photographed for identification purposes, it is recommended that the anchor devices are marked with numbers and that this numbering is incorporated into the anchor device inspection records and the ground plan of the installation area.



# Support & anchoring point

# **ALTIFIX**









#### **GENERAL NOMENCLATURE**







3



4

#### Trigger post

**WVAFXPVC** 

For solid steel pan (PVC membrane included)



WVAFXBACPRFPVC For perforated steel pan (PVC membrane included)



WVAFXPVCPA2

With stainless steel anchoring ring (PVC membrane included)

#### Anchor point

WVAFXPVCPA

With aluminium-copper anchoring ring (PVC membrane included)









#### Rail support

**WVRAFXPVC** (PVC membrane included)

#### Rocker mounting kit

**WVKVBSEx** For solid steel pan

Lengths: 130, 230, 330 mm

# Chemical fixing kit

**WVANCRAFX** 

Reinforcement fixing kit for steel pan

WVKVRBAC

For installation in ends and corners



#### Reinforcement fixing kit for concrete slab

**WVKVRBET** For installation in ends and



#### Bitumen sleeve - WVKV4FIXx

For perforated steel pan -Available in 3 lengths: 130, 230, 330 mm



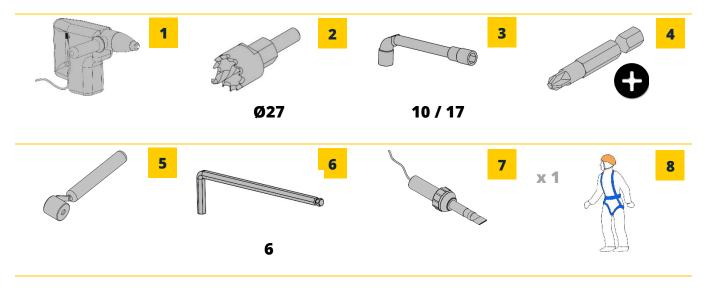
corners



# Support & anchoring point

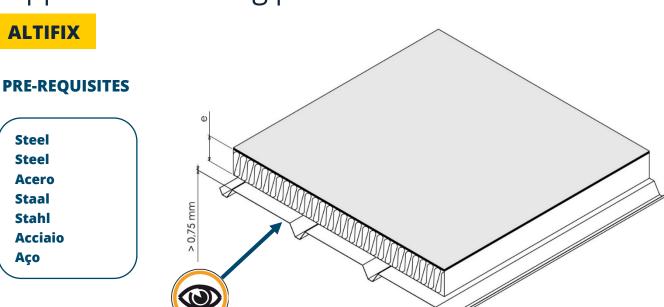
**ALTIFIX** 

# **TOOLS & PERSONNEL REQUIRED**





# Support & anchoring point



	0 < e <130	100 < e < 230	200 < e < 330
	mm	mm	mm
Fixing kit Fixing kit Kit de fijación	KVBSE1	KVBSE2	KVBSE3
Bevestigingskit Befestigungssatz Kit di fissaggio Kit de fixação	KV4FIX2	KV4FIX230	KV4FIX330

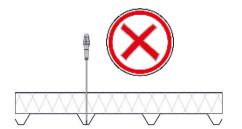




# Support & anchoring point

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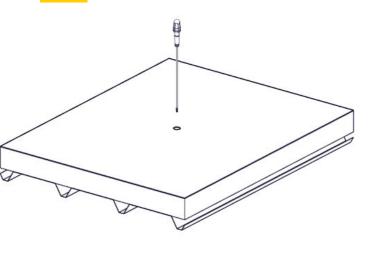




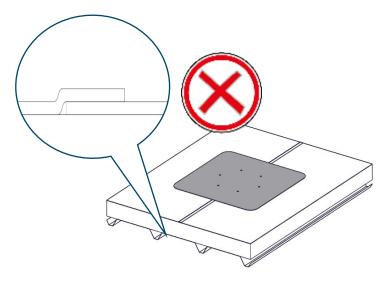








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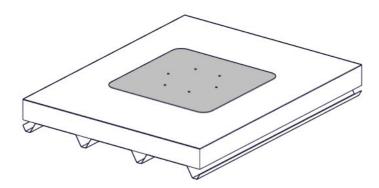




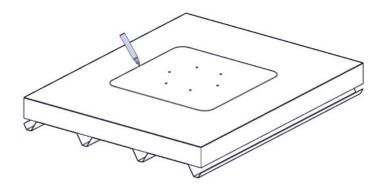
# Support & anchoring point

# **ALTIFIX**



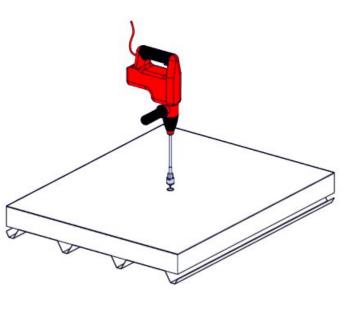


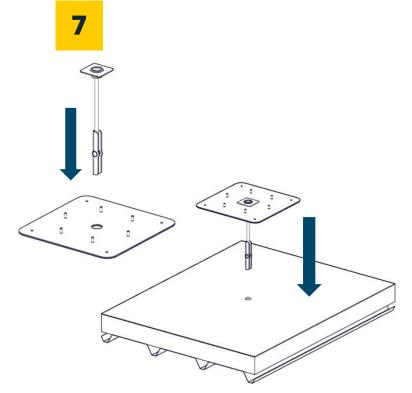














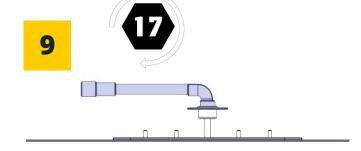


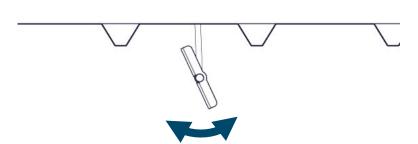
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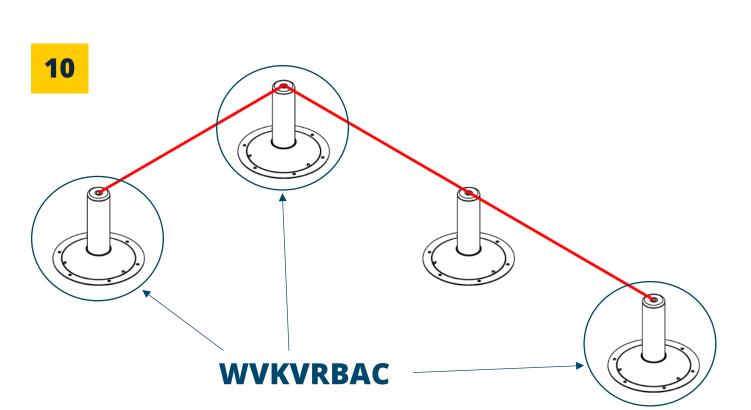
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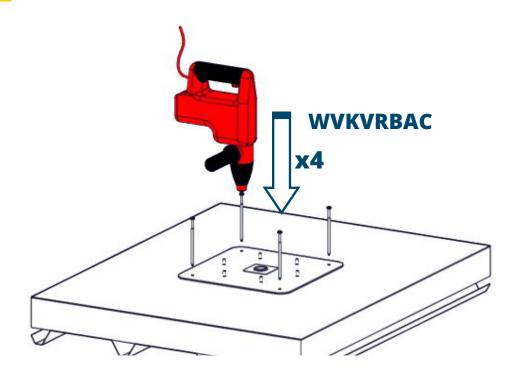




# Support & anchoring point

**ALTIFIX** 

11



a	0 < a < 100	100 < a < 160	160 < a < 245	215 < a < 280
b	127 mm	178 mm	250 mm	305 mm
	WVk	VRBAC	WVKV	RBAC2
			a b	

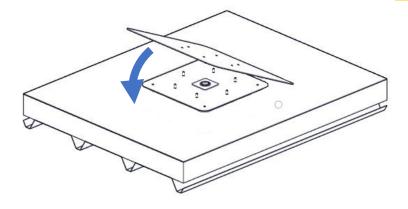


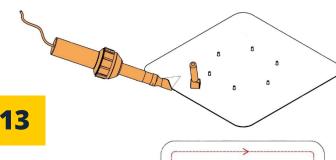


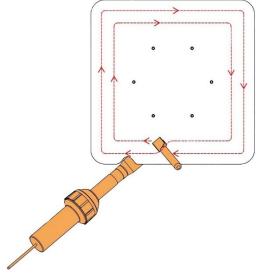
Support & anchoring point

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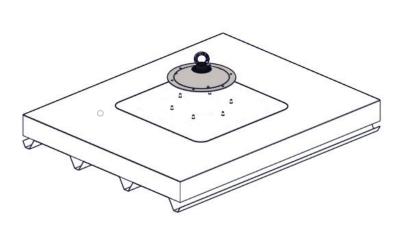
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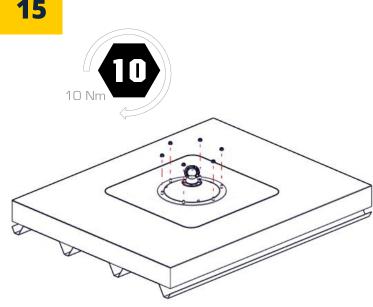






14





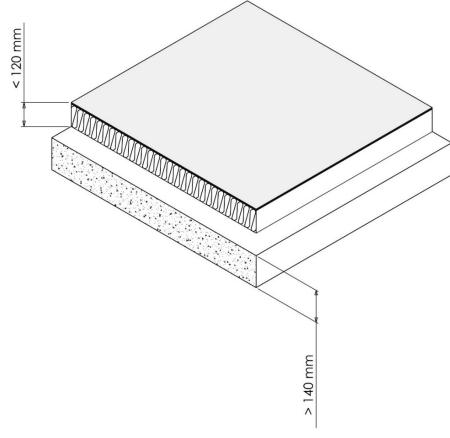


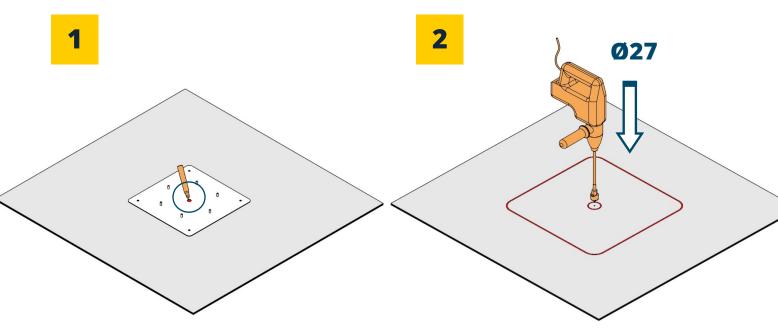
Support & anchoring point

# **ALTIFIX**

### **PRE-REQUISITES**

Concrete slab
Concrete pave
Plachas de hormigón
Betonnen dakvloer
Platte Beton
Lastra di calcestruzzo
Betão armado

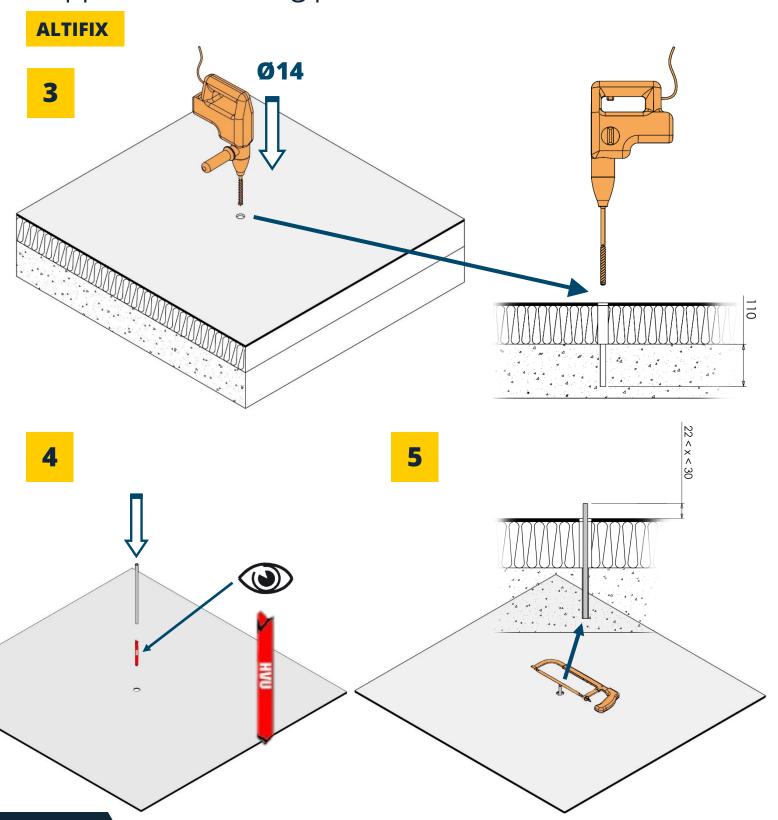








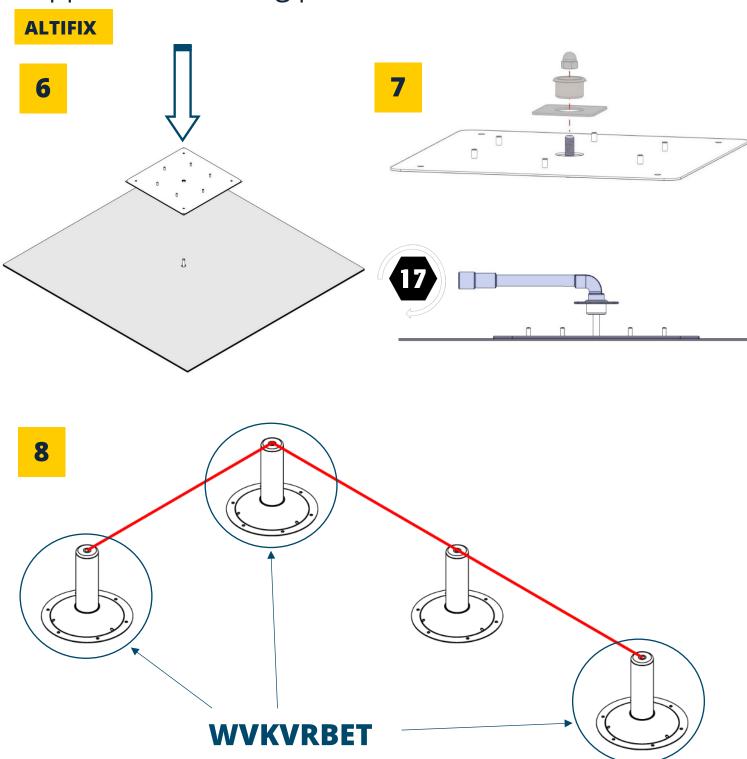
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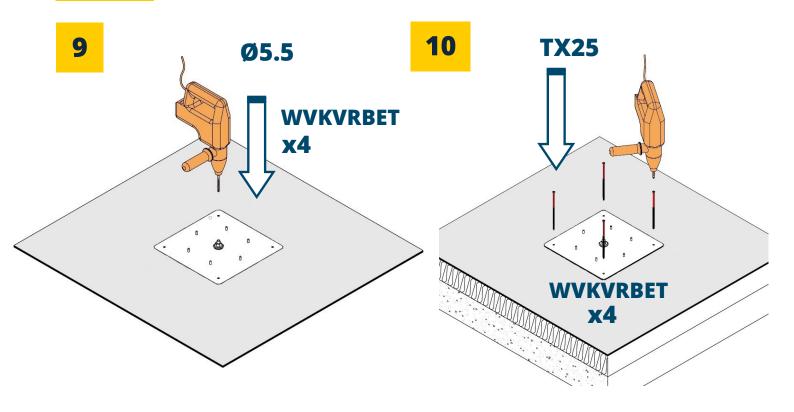
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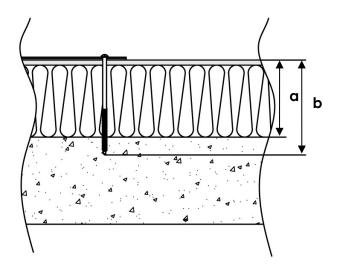


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# **ALTIFIX**

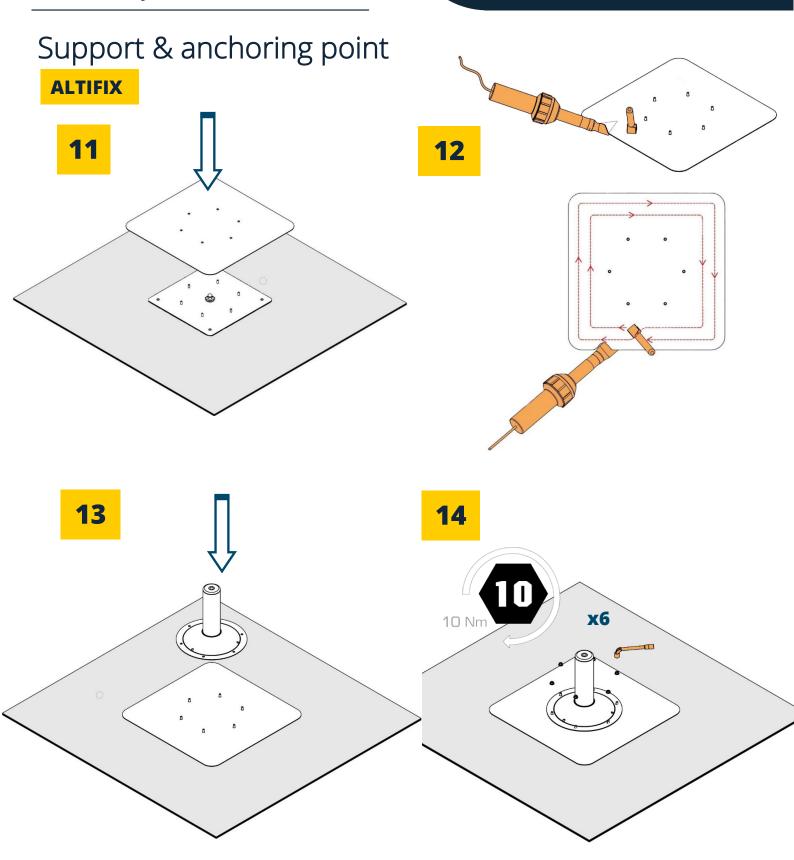


а	0 < a < 70	80 < a < 105	120 < a < 140		
b	95 mm	125 mm	165 mm		











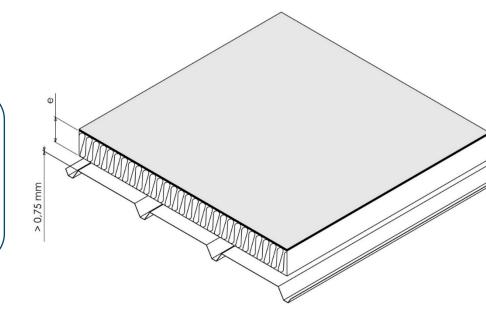


# Support & anchoring point

# **ALTIFIX**

### **PRE-REQUISITES**

Perforated steel pan
Isolated perforated steel roof
Cubierta de acero perforado
Staalplaat dakplaat geperforeerd
Trogstahl perforiert
Yetto di acciaio perforato
Cobertura metálica perfurado



		0 < e <130	100 < e < 230	200 < e < 330
		mm	mm	mm
Fixing kit	A 1000			
Fixing kit				
Kit de fijación				
Bevestigingskit		KV4FIX2	KV4FIX230	KV4FIX330
Befestigungssatz				
Kit di fissaggio				
Kit de fixação				

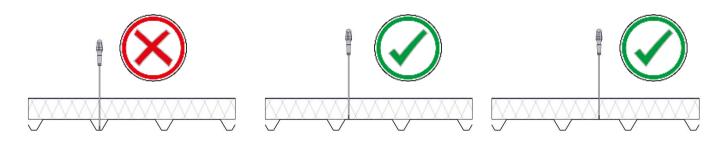


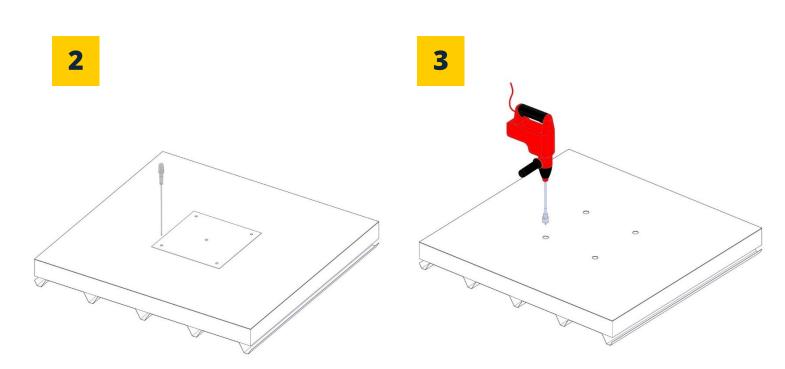


# Support & anchoring point

# **ALTIFIX**





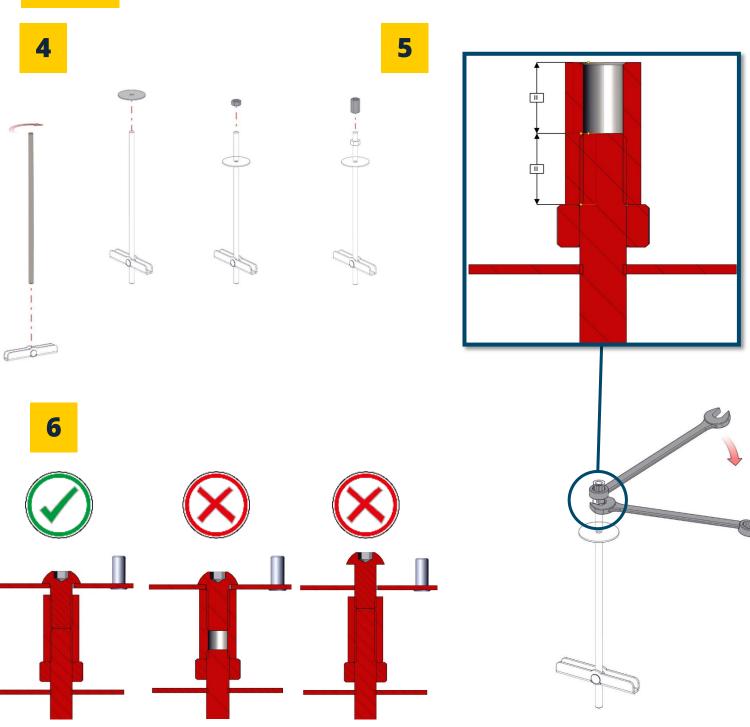






# Support & anchoring point

# **ALTIFIX**





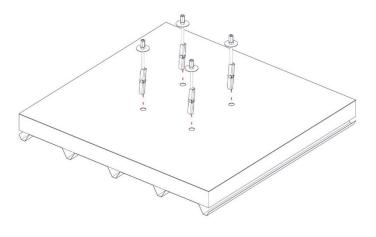
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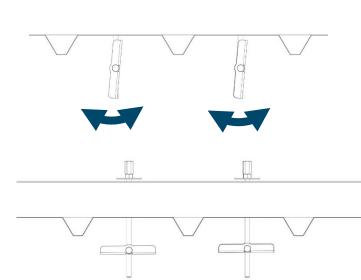
**ALTIFIX** 

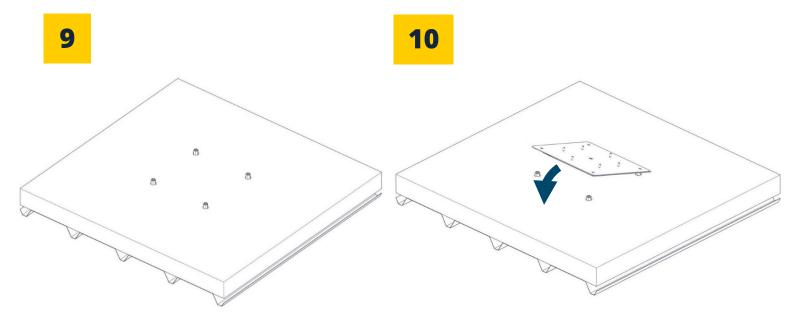
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8





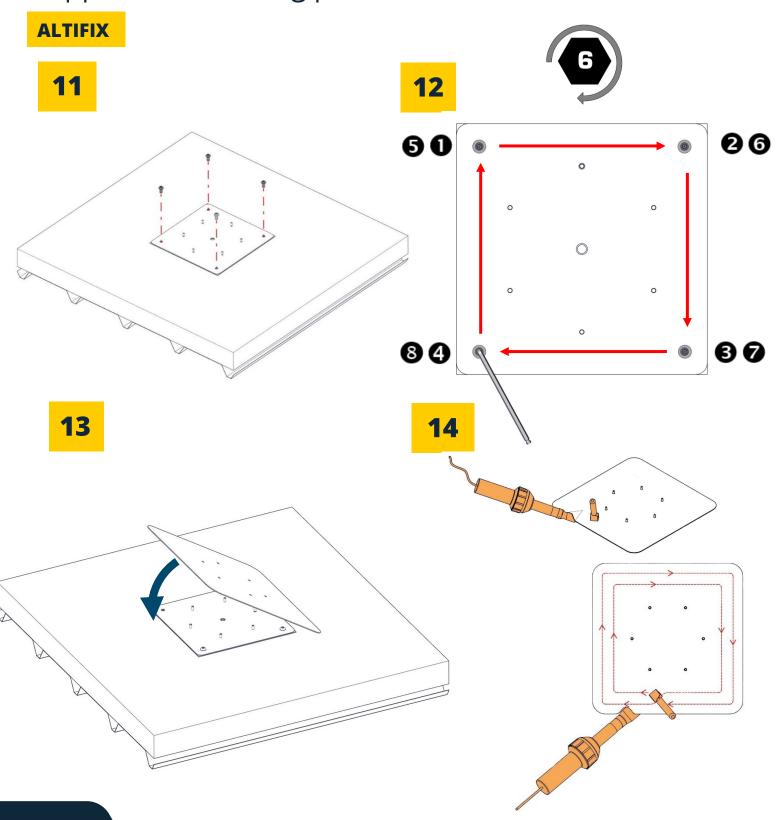








# Support & anchoring point

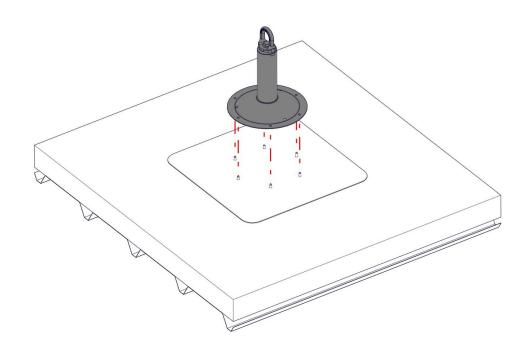




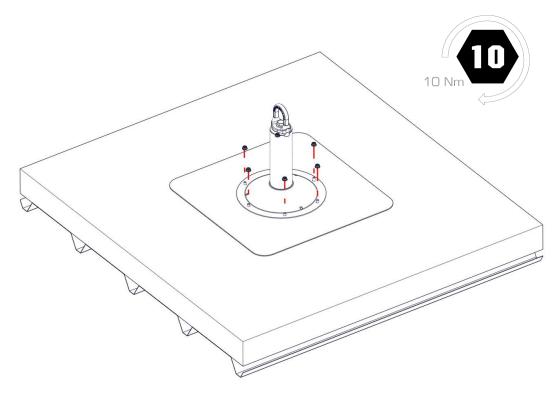
# Support & anchoring point

**ALTIFIX** 

**15** 



16





# Support & anchoring point

#### ALTIFIX PVC ANCHORING POST

Product identification					
Manufacturer / Supplier :	Delta Plus Systems				
Product name / Reference :	Altifix PVC anchoring post - WVAFXPVC				
Normative references :	Standard EN 795 : 1996/2000 Class A1 Standard EN 795 : 2012 Class A Standard CEN/TS 16415: 2013				



User identification							
Name :		Company:					
History ch	History check						
Year of		Date of first use :					
manufactur e :		Date of purchase					

The controller declines all responsibility in the event of inaccuracy in the information concerning the historical verification which must be carried out by the user. The user is obliged to keep the entire history of the periodic examinations and repairs carried out.

#### Service life / Disposal

For Delta Plus Systems products, plastics and textiles, the maximum service life is 10 years from the date of manufacture. There is no limit for metal products. CAUTION, an exceptional event may lead you to reject a product after a single use (type and intensity of use, environment of use: aggressive environments, marine environment, sharp edges, extreme temperatures, chemicals, etc.).

A product must be scrapped when :

- It is over 10 years old and made of plastic or textile, except for the seals, which need to be inspected regularly.
- He has suffered a serious fall (or strain).
- The results of the product checks are not satisfactory. You have doubts about its reliability.
- You don't know its full history of use.
- When its use is obsolete (changes in legislation, standards, technology or incompatibility with other equipment, etc.).

Destroy these products to prevent future use.









**X** Repaired



To be discarded

# **Distributed by**

# Support & anchoring point

Good G

# **ALTIFIX**

Comments

Visual check of components							9	×	
General condition of the anchoring post (post tripped, deformations, wear, corrosion, etc.)									
		ness of cap nut, corrosion, etc.)							
Condi	ition of the attached PVC m	embrane (peripheral welds, cracks, etc.	)						
Prese	nce of markings with norm	ative information							
Func	tional verification of c	omponents			Þ		Q	*	
Corre	ct location of the anchoring	g post in relation to the area to be secur	-ed						
Ancho	oring ring rotates correctly (	(if ring rotates)							
Com	iments :								
		Inspec	ction ve	rdict					
	The product is <u>fit</u> to remain	ain in service		The product is <u>unfit</u> to re	main in serv	ice			
				C.1					
		Identification and	d visa o	t the controller					
Name	ž :		Compar	ny					
Date	of inspection :		Controll	er's stamp (Signature /					
Date	of next inspection :		Stamp):						

To watch out for



# Support & anchoring point

#### **ALTIFIX PVC PA SWIVEL ANCHOR**

Product identification				
Manufacturer / Supplier :	Delta Plus Systems			
Product name / Reference :	ALTIFIX-PA swivel anchor - WVAFXPVCPA			
Normative references :	NF EN 795 September 1996 - Class A1			



User ident	User identification						
Name :		Company:					
History check							
Year of		Date of first use :					
manufactur e :		Date of purchase					

The controller declines all responsibility in the event of inaccuracy in the information concerning the historical verification which must be carried out by the user. The user is obliged to keep the entire history of the periodic examinations and repairs carried out.

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- He has suffered a serious fall (or strain).
- The results of the product checks are not satisfactory. You have doubts about its reliability.
- You don't know its full history of use.
- When its use is obsolete (changes in legislation, standards, technology or incompatibility with other equipment, etc.).

Destroy these products to prevent future use.









Identification & verification



# **Distributed by**

# Support & anchoring point

# **ALTIFIX**

Comments	Good	Q	To watch out fo	Repaired	d			o be dis	carded
Visual check of comp	onents						Q	*	Ó
General condition of the ar	General condition of the anchoring point (deformation, wear, corrosion, etc.)								
Condition of anchor fixing	(tightening of cap nut, corro	osion, compressi	ion of EPDM se	al, etc.)					
Condition of the attached I	PVC membrane (peripheral	welds, cracks, et	tc.)						
Presence of markings with	normative information								
Functional verification	n of components						Q	*	Ó
Correct location of the and	<u> </u>	he area to be se	cured						ш
Anchoring ring rotates corr	rectly (if ring rotates)								
Comments :									
		Insp	ection verdi	t					
The product is <u>fit</u> to	o remain in service		Th	e product is <u><b>unfit to</b> re</u> r	main in serv	vice			
	Id	lentification a	ınd visa of th	e controller					
Name :			Company						
Date of inspection :				stamp (Signature /					
Date of next inspection :			Stamp):						