

(1) CERTIFICATE

(2) No. of the certificate: ZB/B045/16-PZ R3 replaces ZP/B045/16-PZ R2, ZP/B073/16-PZ R1 and ZP/B133/16-PZ

(3) Product: **Anchors type A
Type: ES, ZS, ESL, ZSL' ESM, ZSM
ESA, ESA Easy**

(4) Manufacturer: **Tiga Tech GmbH**

(5) Address: **Derndorferberg 2, 4501 Neuhofen/Krems, Austria**

(6) The design type of these products as well as the various permissible versions are specified in the annex to this type examination certificate.

(7) The certification body of DEKRA EXAM GmbH certifies that these products meet the requirements according to the test principles listed under point 8. The results of the test are laid down in the test reports PB 16-048 Rev1, PB 16-077 Rev1, PB16-153 Rev_01, PB 16-196, PB 16-228 and PB 16-304.

(8) The requirements are met through compliance with

DIN EN 795:2012

DIN CEN/TS 16415:2013

(9) This certificate refers to the testing of the described products in accordance with the stated test specifications. For the manufacture and placing on the market of the products, further requirements may have to be fulfilled which are not covered by this certificate.

(10) The manufacturer is entitled to add the mark of conformity to the products conforming to the tested type in accordance with the attached sample.

(11) This certificate is valid until 15.12.2021.

DEKRA EXAM GmbH

Bochum, 03.05.2017



Wiggen

Leitner

(12) Attachment to the

(13) **Certificate**
ZP/B045/16-PZ R3

(14) 14.1 Object and type
Anchors type A

Type:	ES	300-800	B / B-S / H / HD-SD / S / S-KP / B-KA
	ZS	300-800	B / B-S / H / HD-SD / S / S-KP / B-KA
	ESL	300-800	B / B-S / H / HD-B / S / S-KP / T
	ZSL	300-800	B / B-S / H / HD-B / S / S-KP / T
	ESM	300-800 III	B / B-S / HD-B / H
	ZSM	300-800 III	B / B-S / HD-B / H
	ES	300-800 III	B / B-S / HD-B
	ZS	300-800 III	B / B-S / HD-B
	ES	300-800 II	B / B-S
	ZS	300-800 II	B / B-S
	ZS	300-800 I	B / B-S / H
	ZS	300-800	B-KA
	ESA	300-800 III	B / B-S
	ESA Easy	300-800 III	B / B-S

14.2 Description

The anchors are used as single anchorage points to secure a maximum of three persons against falling. They are mounted on concrete, steel or wooden bases, depending on the type of support. The supports are 300 mm to 800 mm long. An eyelet is secured to the upper end of the prop or alternatively screwed on rotatably. (Fig. 1) Alternatively, a ring nut (M16 according to DIN EN 582) is securely screwed to the upper end of the support.

The user can secure himself to this with the PPE he is carrying against falling.

The Anchors are designed for loading in all directions parallel to the roof surface.



Fig. 1: Strap, type: TS strap

The different anchor variants are described below.

All anchors can be mounted thermally separated by means of plastic plates.

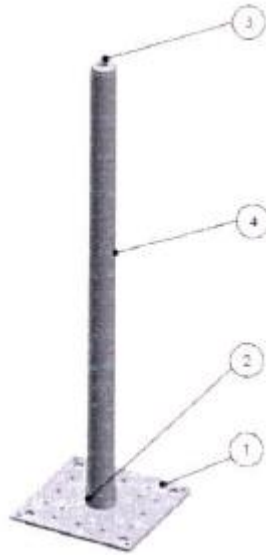


Fig. 2: Anchors, type: ES 300-800 B / B-S / H / HD-SD / S / S-KP / B-KA

- Support: tube, \varnothing 40 mm
- Support height: 300 mm to 800 mm
- Base plate: 205 mm x 205 mm x 5 mm
- Fixing substrate: steel, concrete, OSB board 18 mm, multi-layer board 19 mm, wooden rafters, wooden boarding 24 mm
- Concrete fixing element: 4 x 8 mm concrete screw or 4 x 10 mm concrete anchor
- Fixing element OSB board 18 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm
- Fastening element wood rafters: wood screws 2 pcs. 8 mm., 160 mm
- Fixing element wood formwork 24 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm
- Bore diameter of the base plate: \varnothing 14 mm



Fig. 3: Anchors, type: ZS 300-800 B / B-S / H / HD-SD / S / S-KP / B - KA

- Support: round steel, \varnothing 16 mm
- Support height: 300 mm to 800 mm
- Base plate: 205 mm x 205 mm x 5 mm
- Fixing substrate: steel, concrete, OSB board 18 mm, multi-layer board 19 mm, wooden boarding 24 mm
- Concrete fixing element: 4 x 8 mm concrete screw or 4 x 10 mm concrete anchor
- Fixing element OSB board 18 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm
- Fixing element multi-layer board 19 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm
- Fixing element wood formwork 24 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm
- Bore diameter of the base plate: \varnothing 14 mm

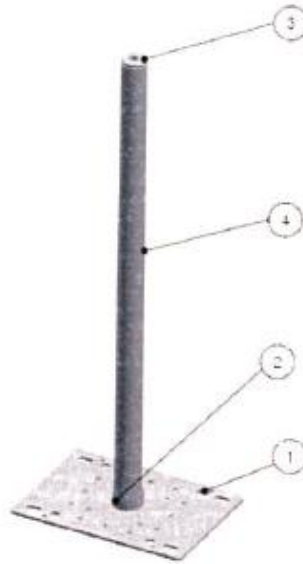


Fig. 4: Anchors, type: ESL 300-800 B / B-S / H / HD-B / S / S-KP/ T

- Support: tube, \varnothing 40 mm
- Support height: 300 mm to 800 mm
- Base plate: 285 mm x 205 mm x 5 mm
- Fixing substrate: steel, concrete, hollow-core slab, OSB board 25 mm, multi-layer board 19 mm, wooden rafters, wooden formwork 24 mm, trapezoidal profile
- Concrete fixing element: 4 x 8 mm concrete screw or 4 x 10 mm concrete anchor
- Fixing element Hollow-core slab: 4 x 8 mm concrete screw or 4 x 10 mm concrete anchor
- Fastening element OSB board 25 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm
- Fixing element multi-layer board 19 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm
- Fastening element wood rafters: wood screws 2 pcs. 8 mm., 160 mm
- Fixing element wood formwork 24 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm
- Fastening element trapezoidal profile: 4 x 2 pcs. M10 screws & counter bars



Fig. 5: Anchors, type: ZSL 300-800 B / B-S / H / HD-B / S / S-KP/ T

- Support: round steel, \varnothing 16 mm
- Support height: 300 mm to 800 mm
- Base plate: 285 mm x 205 mm x 5 mm
- Fixing substrate: steel, concrete, hollow-core slab, OSB board 25 mm, multi-layer board 19 mm, wooden rafters, wooden formwork 24 mm, trapezoidal profile
- Concrete fixing element: 4 x 8 mm concrete screw or 4 x 10 mm concrete anchor
- Fixing element Hollow-core slab: 4 x 8 mm concrete screw or 4 x 10 mm concrete anchor
- Fastening element OSB board 25 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm
- Fixing element multi-layer board 19 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm
- Fastening element wood rafters: wood screws 2 pcs. 8 mm., 160 mm
- Fixing element wood formwork 24 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm
- Fastening element trapezoidal profile: 4 x 2 pcs. M10 screws & counter bars

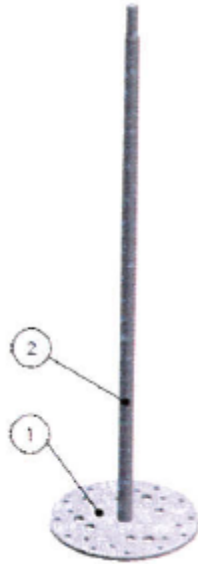


Fig. 6: Anchors, type: ESM 300-800 III B / B-S / HD-B / H

- Support: round steel, \varnothing 20 mm
- Support height: 300 mm to 800 mm
- Base plate: \varnothing 200 mm x 5 mm
- Fixing substrate: concrete, hollow-core slab, OSB board 25 mm, multi-layer board 19 mm, wooden rafters, wooden formwork 24 mm
- Concrete fixing element: 3 x 8 mm concrete screw or 3 x 10 mm concrete anchor
- Fixing element Hollow-core slab: 3 x 8 mm concrete screw or 3 x 10 mm concrete anchor
- Fastening element OSB board 25 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm
- Fixing element multi-layer board 19 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm
- Fastening element wood rafters: wood screws 4 pcs. 8 mm., 160 mm
- Fixing element wood formwork 24 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm

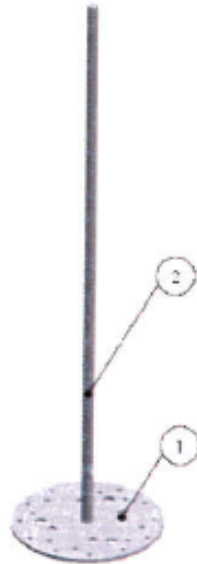


Fig. 7: Anchors, type: ZSM 300-800 III B / B-S / HD-B / H

- Support: round steel, \varnothing 16 mm
- Support height: 300 mm to 800 mm
- Base plate: \varnothing 200 mm x 5 mm
- Fixing substrate: concrete, hollow-core slab, OSB board 25 mm, multi-layer board 19 mm, wooden rafters, wooden formwork 24 mm
- Concrete fixing element: 3 x 8 mm concrete screw or 3 x 10 mm concrete anchor
- Fixing element Hollow-core slab: 3 x 8 mm concrete screw or 3 x 10 mm concrete anchor
- Fastening element OSB board 25 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm
- Fixing element multi-layer board 19 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm
- Fastening element wood rafters: wood screws 4 pcs. 8 mm., 160 mm
- Fixing element wood formwork 24 mm: 20 x wood screws 6 mm x 40 mm or 6 mm x 60 mm



Fig. 8: Anchors, type: ES 300-800 III B / B-S / HD-B

- Support: round steel, \varnothing 20 mm
- Support height: 300 mm to 800 mm
- Base plate: \varnothing 165 mm x 5 mm
- Fixing substrate: concrete, hollow-core slab
- Concrete fixing element: 3 x 8 mm concrete screw or 3 x 10 mm concrete anchor
- Fixing element Hollow-core slab: 3 x 8 mm concrete screw or 3 x 10 mm concrete anchor
- Bore diameter of the base plate: \varnothing 14 mm

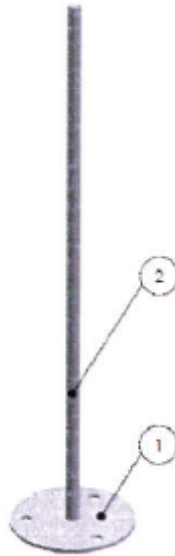


Fig. 9: Anchors, type: ZS 300-800 III B / B-S / HD-B

- Support: round steel, \varnothing 16 mm
- Support height: 300 mm to 800 mm
- Base plate: \varnothing 165 mm x 5 mm
- Fixing substrate: concrete, hollow-core slab
- Concrete fixing element: 3 x 8 mm concrete screw or 3 x 10 mm concrete anchor
- Fixing element Hollow-core slab: 3 x 8 mm concrete screw or 3 x 10 mm concrete anchor
- Bore diameter of the base plate: \varnothing 14 mm



Figure 10: Anchors, type: ES 300-800 II B / B-S

- Support: round steel, \varnothing 20 mm
- Support height: 300 mm to 800 mm
- Base plate: 8 mm
- Mounting surface: Concrete
- Fixing element: 2 x 10 mm concrete screw or 2 x 12 mm concrete anchor
- Bore diameter of the base plate: \varnothing 14 mm



Fig. 11: Anchors, type: ZS 300-800 II B / B-S

- Support: round steel, \varnothing 16 mm
- Support height: 300 mm to 800 mm
- Base plate: 8 mm
- Mounting surface: Concrete
- Fixing element: 2 x 10 mm concrete screw or 2 x 12 mm concrete anchor
- Bore diameter of the base plate: \varnothing 14 mm



Fig. 12: Anchors, type: ZS 300-800 I B / B-S / H

- Support: round steel, \varnothing 16 mm
- Support height: 300 mm to 800 mm
- Base plate: \varnothing 165 mm x 5 mm
- Mounting surface: concrete, wooden rafters
- Concrete fixing element: 1 x 10 mm concrete screw or 1 x 12 mm concrete anchor
- Fastening element wooden rafter: Wooden rafter: Wood screw 1 pc. 8 mm, 160 mm
- Bore diameter of the base plate: \varnothing 14 mm

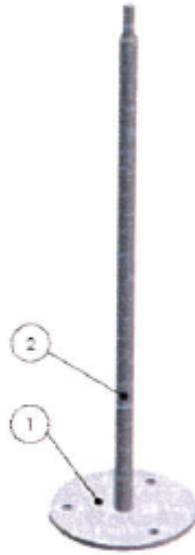


Figure 15: Anchors, type: ESA Easy 300-800 III B / B-S

- Support: round steel, \varnothing 25 mm
- Support height: 300 mm to 800 mm
- Base plate: \varnothing 200 mm x 8 mm
- Mounting surface: Concrete
- Fixing element: 3 x 8 mm concrete screw, 3 x 10 mm concrete screw or 3 x 10 mm concrete anchor
- Bore diameter of the base plate: \varnothing 14 mm

Note: Equivalent or superior fasteners may be specified and used by the manufacturer.

(15) Test report

- PB 16-048 Rev1, 23.05.2016
- PB 16-077 Rev1, 23.05.2016
- PB 16-153 Rev_01, 19.10.2016
- PB-16-196, 16.12.2016
- PB 16-228, 30.09.2016
- PB 16-304, 16.12.2016