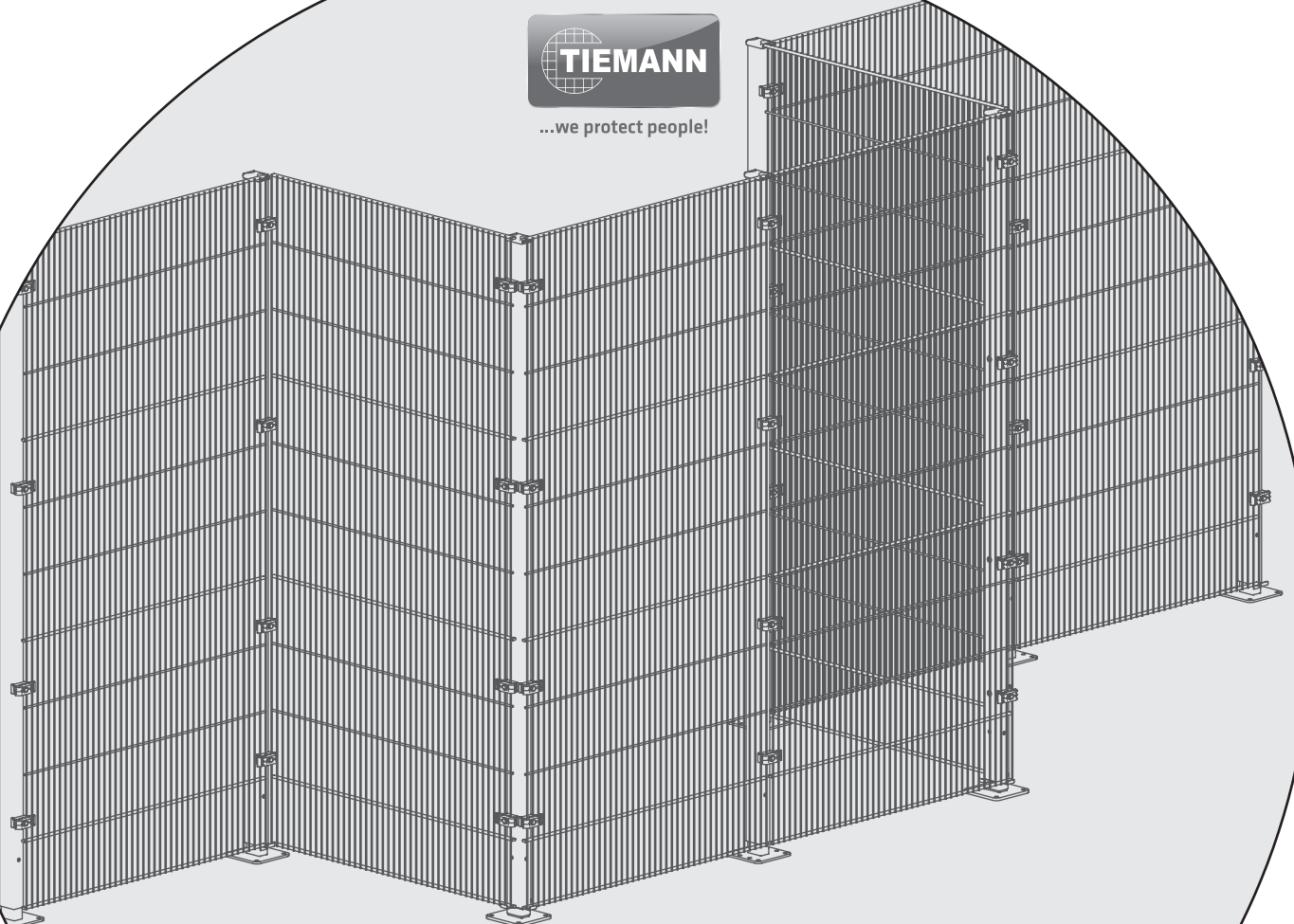




These operating instructions contain important product information and safety instructions. This information must be taken into consideration prior to carrying out any activities relating to the product and observed throughout. These operating instructions must be made available to all parties and stored in a safe place.



...we protect people!



**TRANSLATION OF THE ORIGINAL  
OPERATING INSTRUCTIONS**

**ECONFENCE®**  
protection · german made

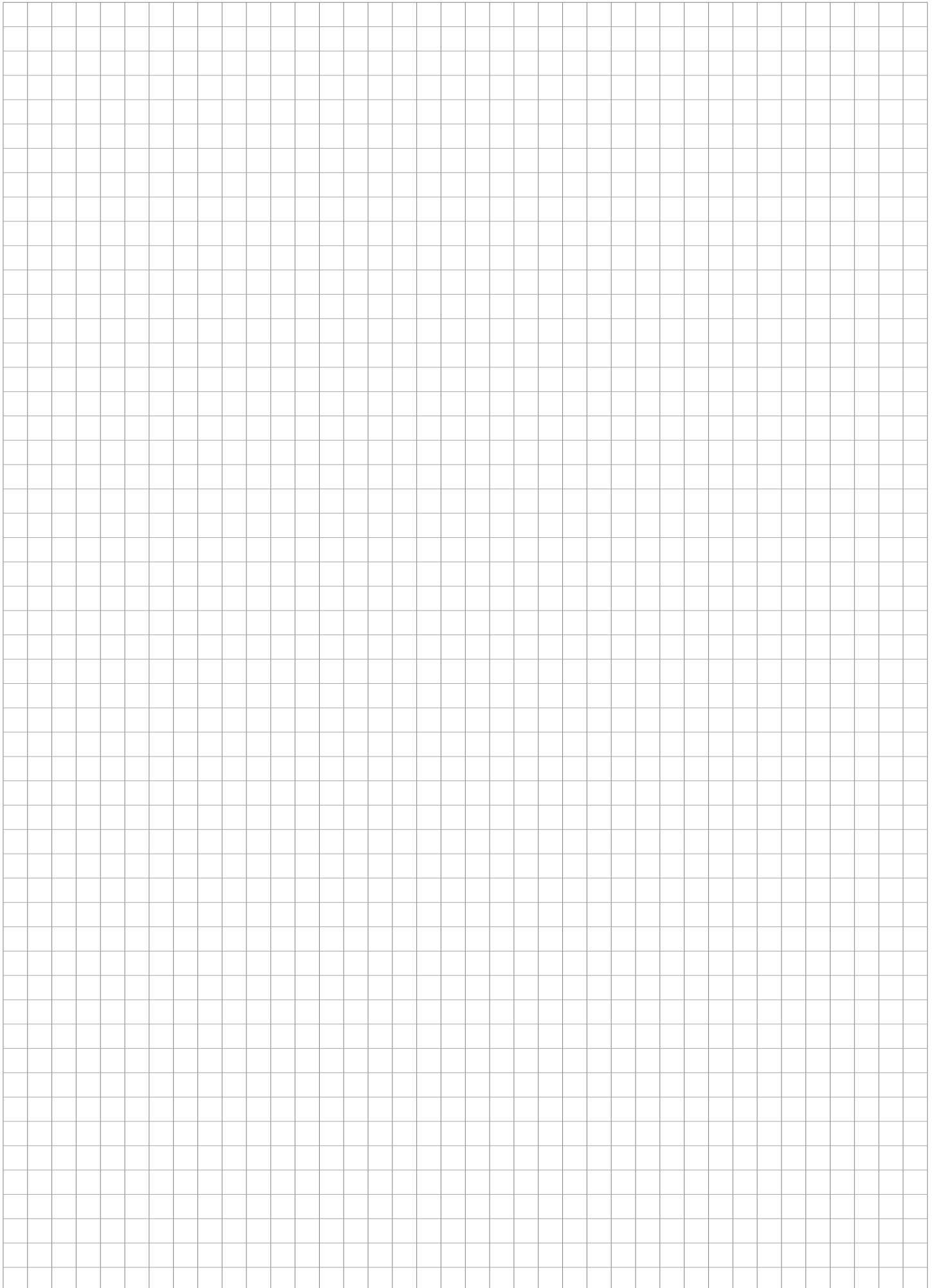
**BASIC LINE** **ZINC**

**PROTECTIVE FENCING**  
System heights 2000 | 2400 mm

Version: 12/2017



## NOTES



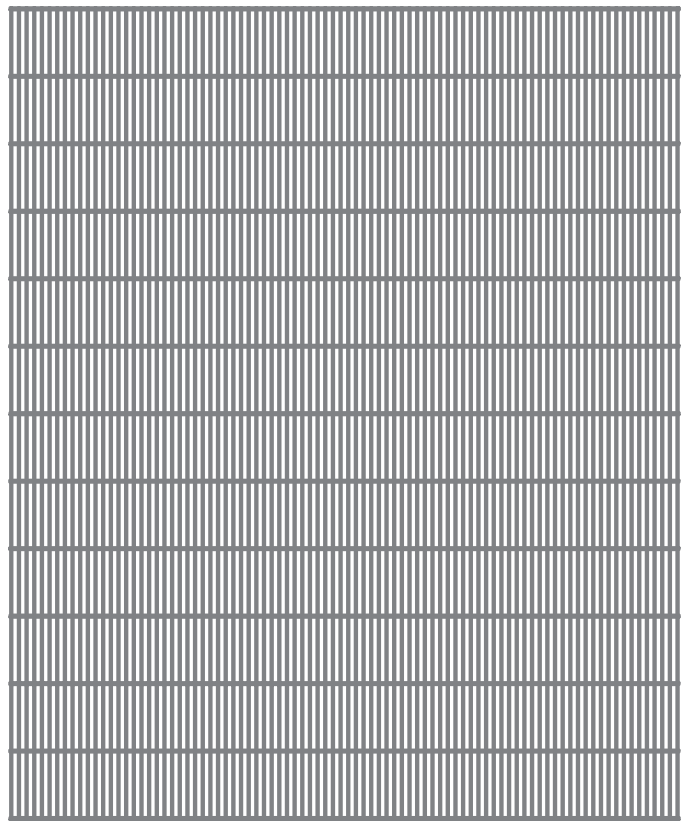
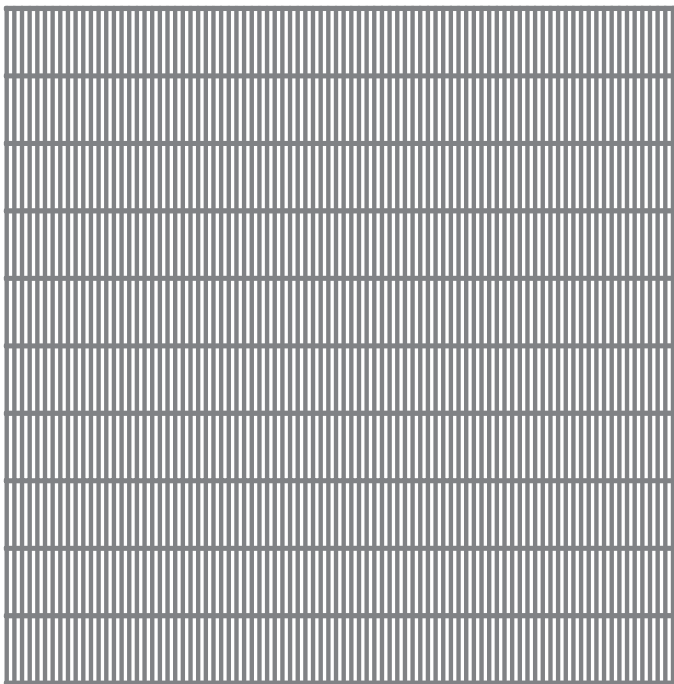
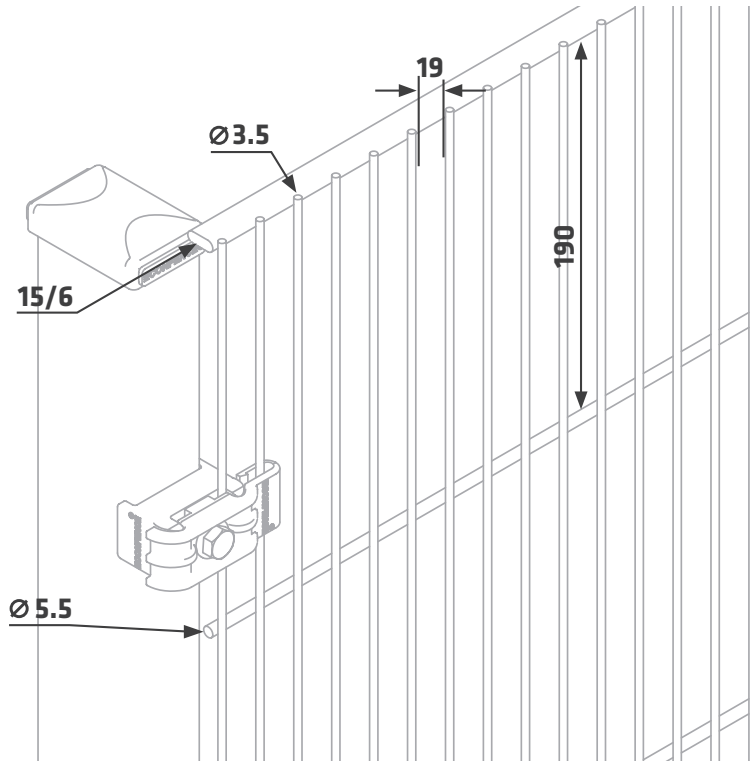
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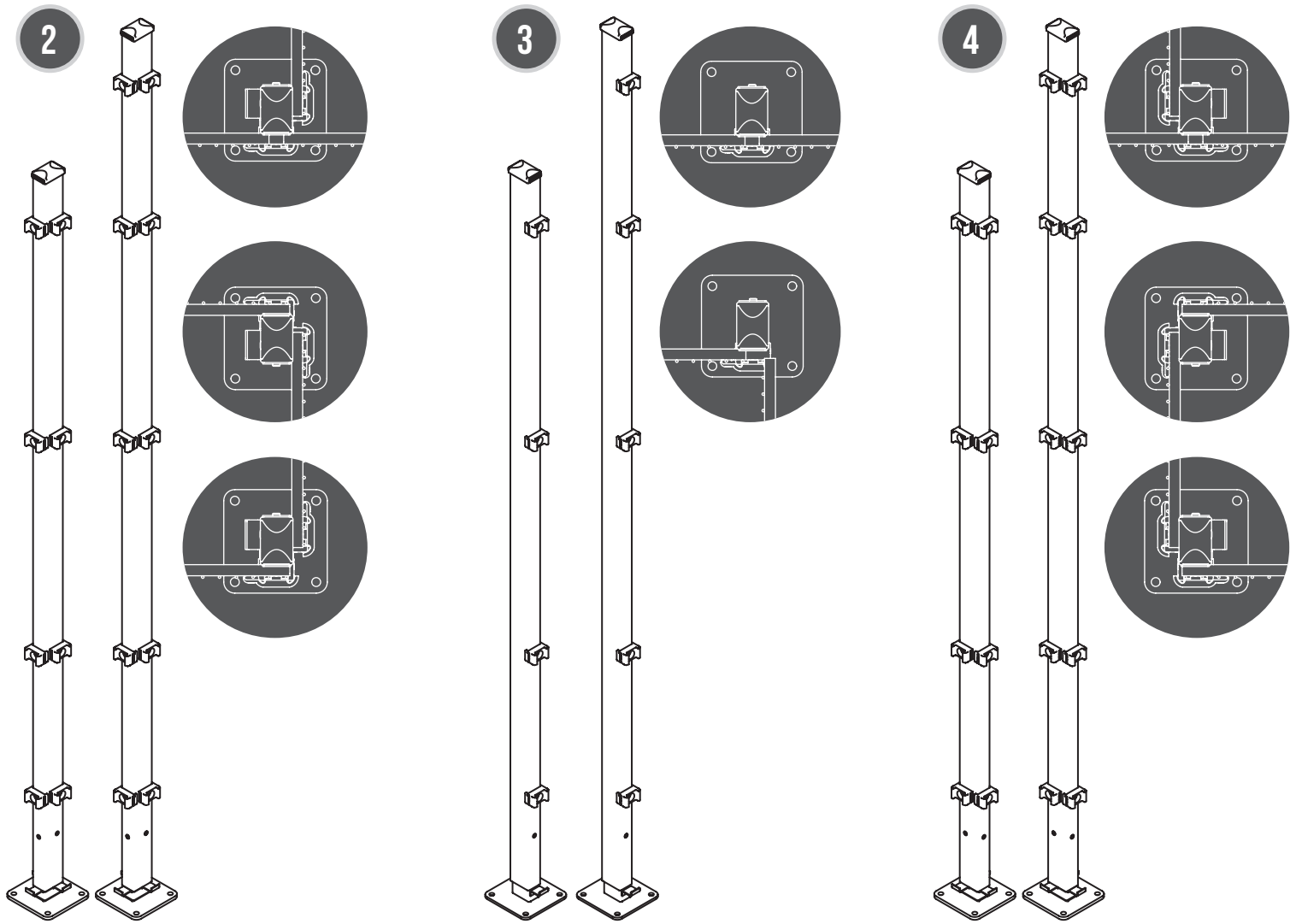
# 1. Product description and technical data

The protective fencing elements are available in the following design as standard:

1



## 1. Product description and technical data



BASIC LINE ZINC	Widths (mm)	Opening widths (mm)	Heights: (mm)	Weights (kg)
1 Mesh element	1983	--	2006	
	1983	--	2406	
2 Universal corner post Left	60/40	--	2045	7.88
	60/40	--	2445	9.17
3 Row post	60/40	--	2045	7.33
	60/40	--	2445	8.56
4 Universal corner post Right	60/40	--	2045	7.88
	60/40	--	2445	9.17

## 2. Intended use and limitations



The ECONFENCE® BASIC LINE ZINC protective fencing system is designed to establish a fixed, safe distance to protect people from coming into contact with hazardous machinery and facilities. The fencing elements are designed for use as fixed guards according to ISO 14120.



Any other use shall require the written approval of the manufacturer. If machines or systems are not surrounded entirely by the protective fencing system, the open areas (such as material transfer points and personnel access points) must be secured by the plant engineer in accordance with the risk assessment and the relevant legislation.



Intended use also includes an understanding of these operating instructions and compliance with the contents.

When incorporating the protective fencing systems into the overall security concept of the machine or system, the following standards must be taken into consideration:

- ISO 12100 Safety of machinery – General principles for design – Risk assessment and risk reduction
- ISO 11161 Safety of machinery – Integrated manufacturing systems – Basic requirements
- ISO 13857 Safety of machinery – Safety distances to prevent hazard zones being reached by upper and lower limbs
- BS EN 349 Safety of machinery – Minimum gaps to avoid crushing parts of the human body
- ISO 14120 Safety of machinery – Guards – General requirements for the design and construction of fixed and movable guards
- ISO 14119 Safety of machinery – Interlocking devices associated with guards – Principles for design and selection
- ISO 13849-1 Safety of machinery – Safety-related parts of control systems – Part 1: General principles for design



The system is not intended for outdoor use.



...we protect people!

TIEMANN  
Schutz-Systeme GmbH  
Lübbecker Straße 16  
32257 Bünde | Germany

T+49 (0)5223 791995-0  
F+49 (0)5223 791995-90

info@econference.com  
www.econference.com

## EG-KONFORMITÄTSERKLÄRUNG

im Sinne der EG Maschinenrichtlinie 2006/42/EG, Anhang II A

## EC DECLARATION OF CONFORMITY

according to EC Machinery Directive 2006/42/EC, Annex II A

Hersteller | Manufacturer

Tiemann Schutz-Systeme GmbH  
Lübbecker Str. 16  
32257 Bünde / Germany



Hiermit erklären wir, dass das Produkt

Produktbezeichnung: **Trennende Schutzeinrichtung**  
Typ: **ECONFENCE® BASIC LINE ZINK**  
Baujahr bzw. Seriennummer: **as of 05/2016**

den einschlägigen Bestimmungen der Richtlinie 2006/42/EG entspricht.

Es wurden folgende harmonisierte Normen angewandt:

- DIN EN ISO 14120:2016-05

We hereby declare that the product:

Product designation: **Separating guard**  
Type: **ECONFENCE® BASIC LINE ZINC**  
Year of build or serial number: **as of 05/2016**

meets the relevant provisions of directive 2006/42/EC.

The following harmonised standards have been applied:

- DIN EN ISO 14120:2016-05

Bünde,  
Ort  
City

Datum  
Date

Unterschrift\*  
Signature\*










Axel W. Tiemann  
Geschäftsführer  
Managing Director

Der Unterzeichner ist verantwortlich für die Zusammenstellung der technischen Unterlagen und gleichzeitig der verantwortliche Herausgeber der technischen Dokumentation.

The signatory is responsible for the composition of the technical documents and at the same time the responsible publisher of the technical documentation.

#### 4. Safety instructions and explanation of symbols

The security symbols are to be noted and observed in each of the relevant sections of these operating instructions.

Symbol	Explanation
	<b>Safety instruction</b> (Failure to observe will result in injury or death)
	<b>Functional instruction</b> (Failure to observe will result in malfunctions or material damage)
	Hazardous area
	Non-hazardous area
	Magnified/detailed view
	Installation height
	Essential tool (refer to page 10)
	Use ear protectors
	Use protective eyewear



## 5. Assembly and installation

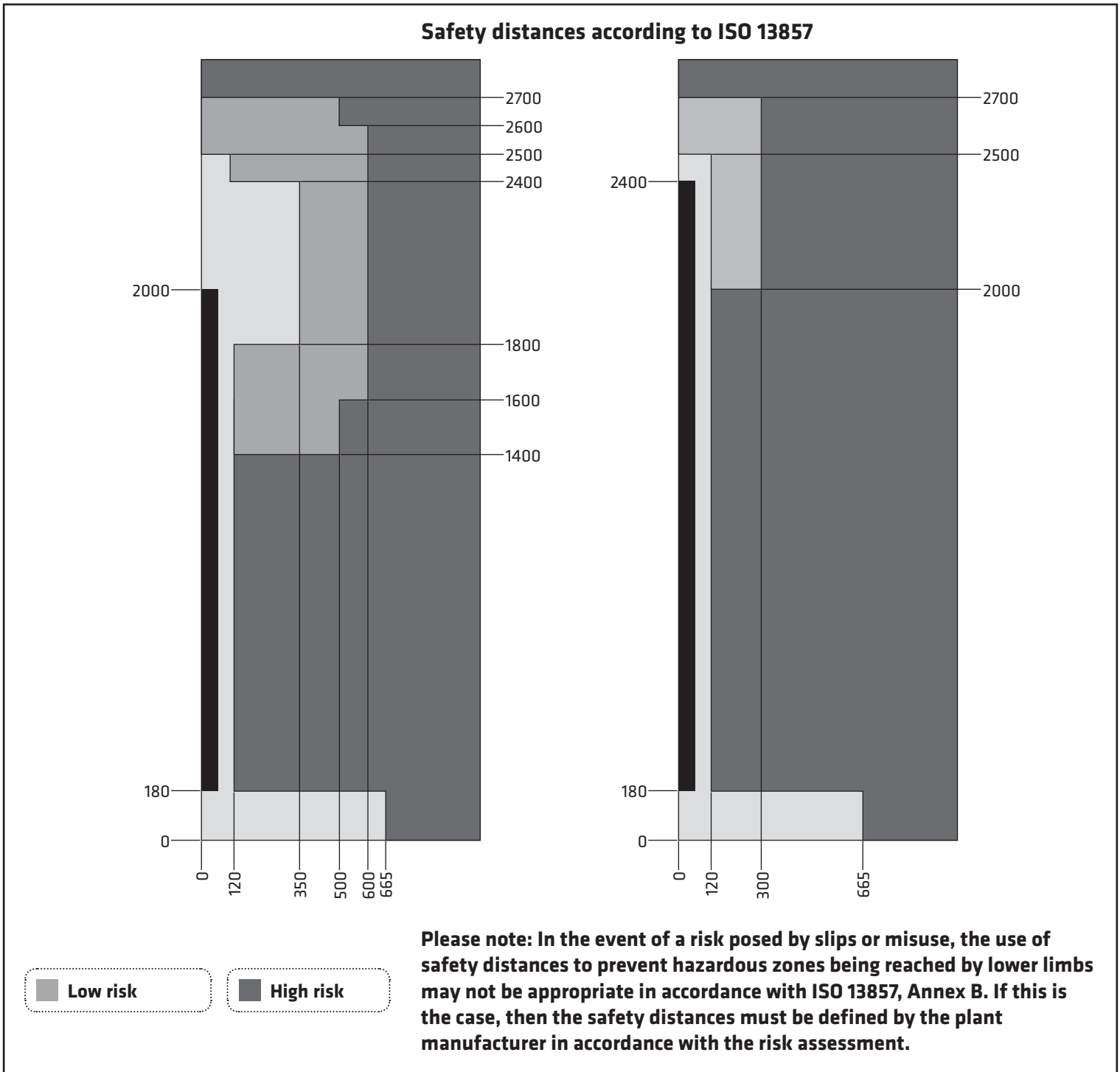


**Two people are required for the assembly and installation.**

**Only specialist personnel are authorised to carry out the assembly and installation.**

**Prior to commencing the installation work, the machine or system being enclosed must be switched off or else made safe.**

**Establish/check the required safety distances from the hazardous areas of the machine/system according to ISO 13857:**



**Safety distances only apply with the use of ECONFENCE® mesh elements with a mesh size of 19|190 mm. Information on dimensions and weight specifications of the system components can be found in Section 1. Technical data, page 4-5.**

**The system is only intended to be used on the following surface (see page 11).**

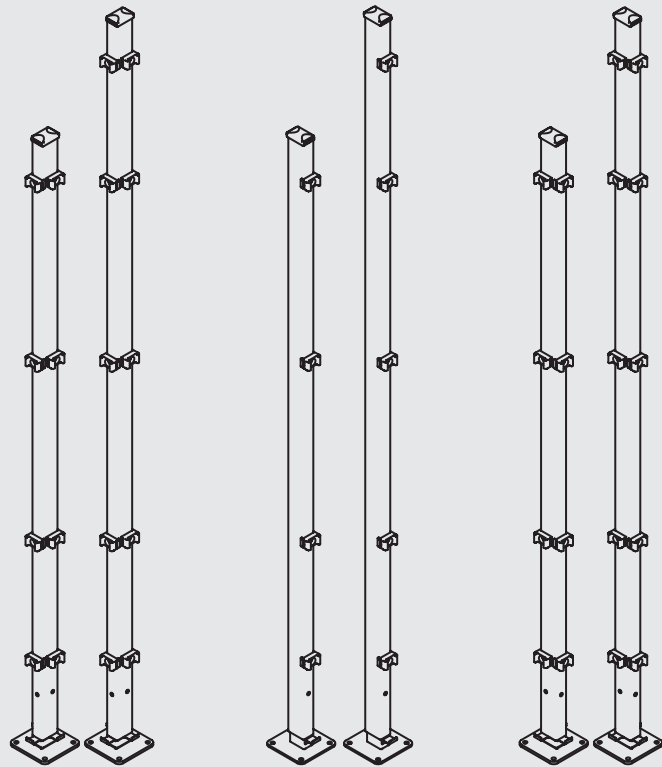
**Only the supplied fastening elements are to be used.**

**When installing the electrical equipment (such as cables, switches and the control cabinet) for the protective fencing system, the requirements of BS EN 60204-1 must be observed.**

Should you have any further questions, please contact our Customer Service team on +49 (0) 5223 791995-0

## 5.1. Essential tool

### Product

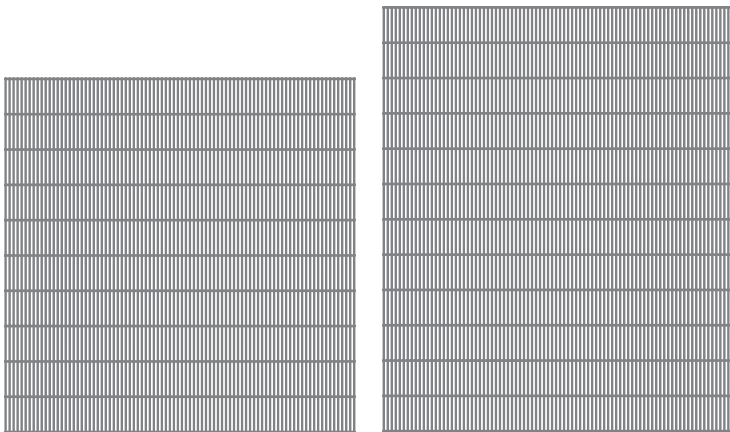
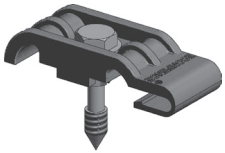


Post assembly (page 11)



### Tools

**Drill with  $\varnothing$  10 mm concrete drill bit**  
**Hammer**  
**17 mm socket wrench**  
**6 mm Allen key**



Mesh assembly (page 12-17)

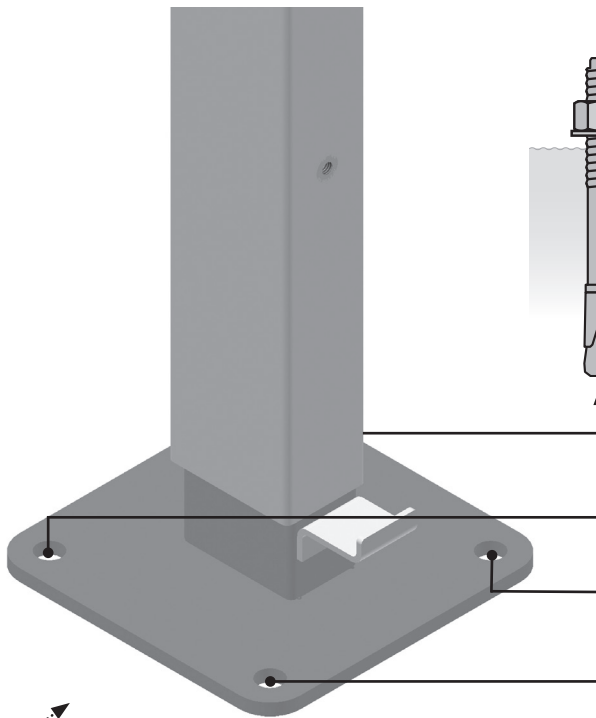
**6 mm Allen key**  
**13 mm socket wrench**

## 5.2. Post assembly

Substrate material: Concrete (uncracked) C20/25 to C50/60

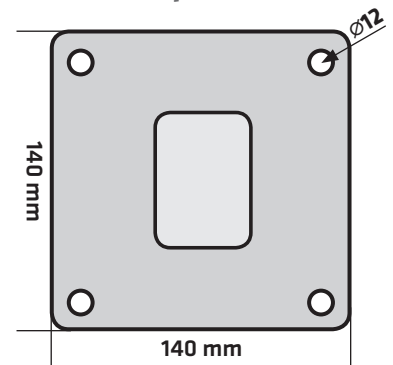


See page 10



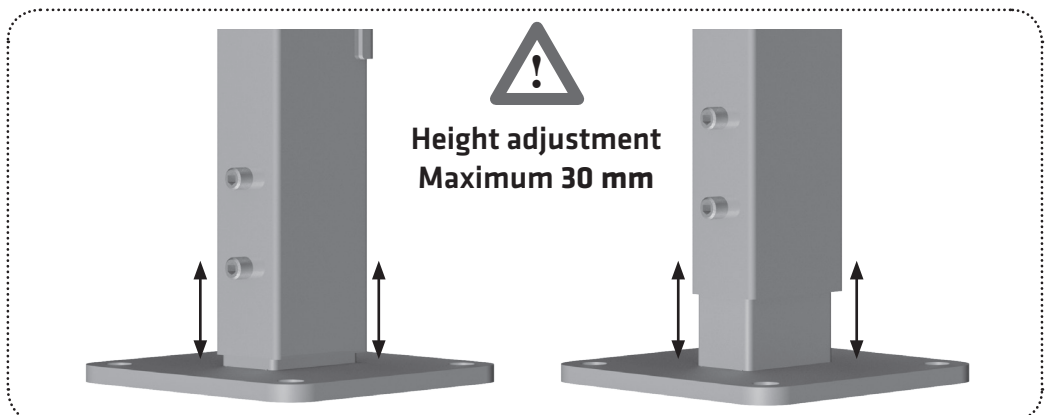
4 x  HSA M10x113 50/40/10

Top view



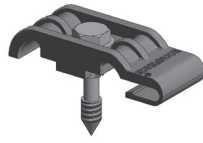
### Technical data:

Dowel size	M10
Dowel length	113 mm
Approvals	ETA-11/0374
Substrate material	Concrete (uncracked) C20/25 - C50/60
Environmental factors	Indoors, dry
Edge clearance	50 mm
Operating principle	Torque-controlled expansion anchor
Standard embedment depth	50 mm
Nominal drill diameter	10 mm
Borehole depth	80 mm
Required tightening torque	25 Nm

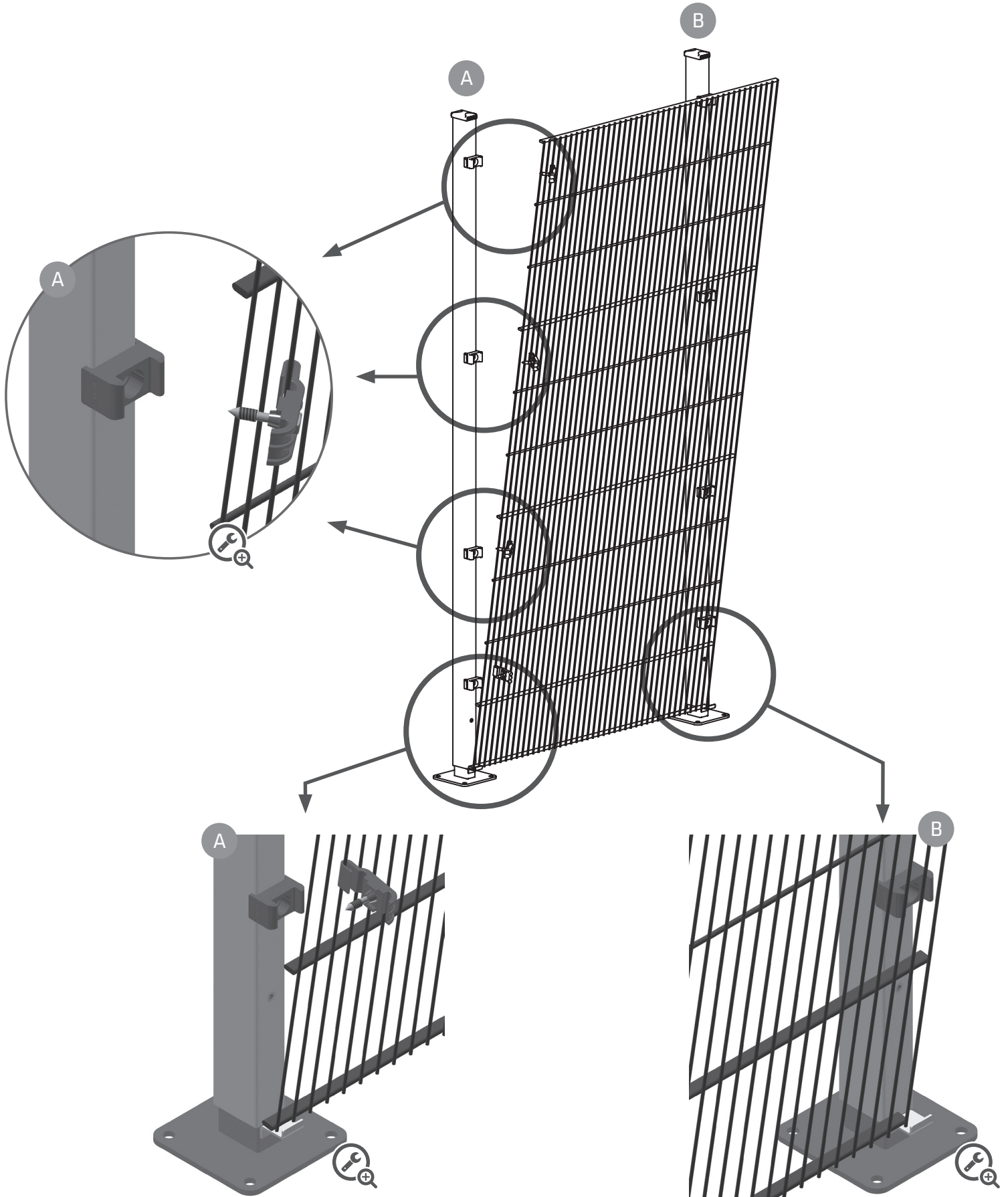


### 5.3. Mesh assembly

#### Installation of clamping element ZB31004



See page 10

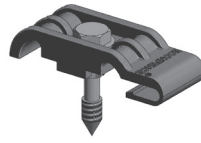


### 5.3. Mesh assembly

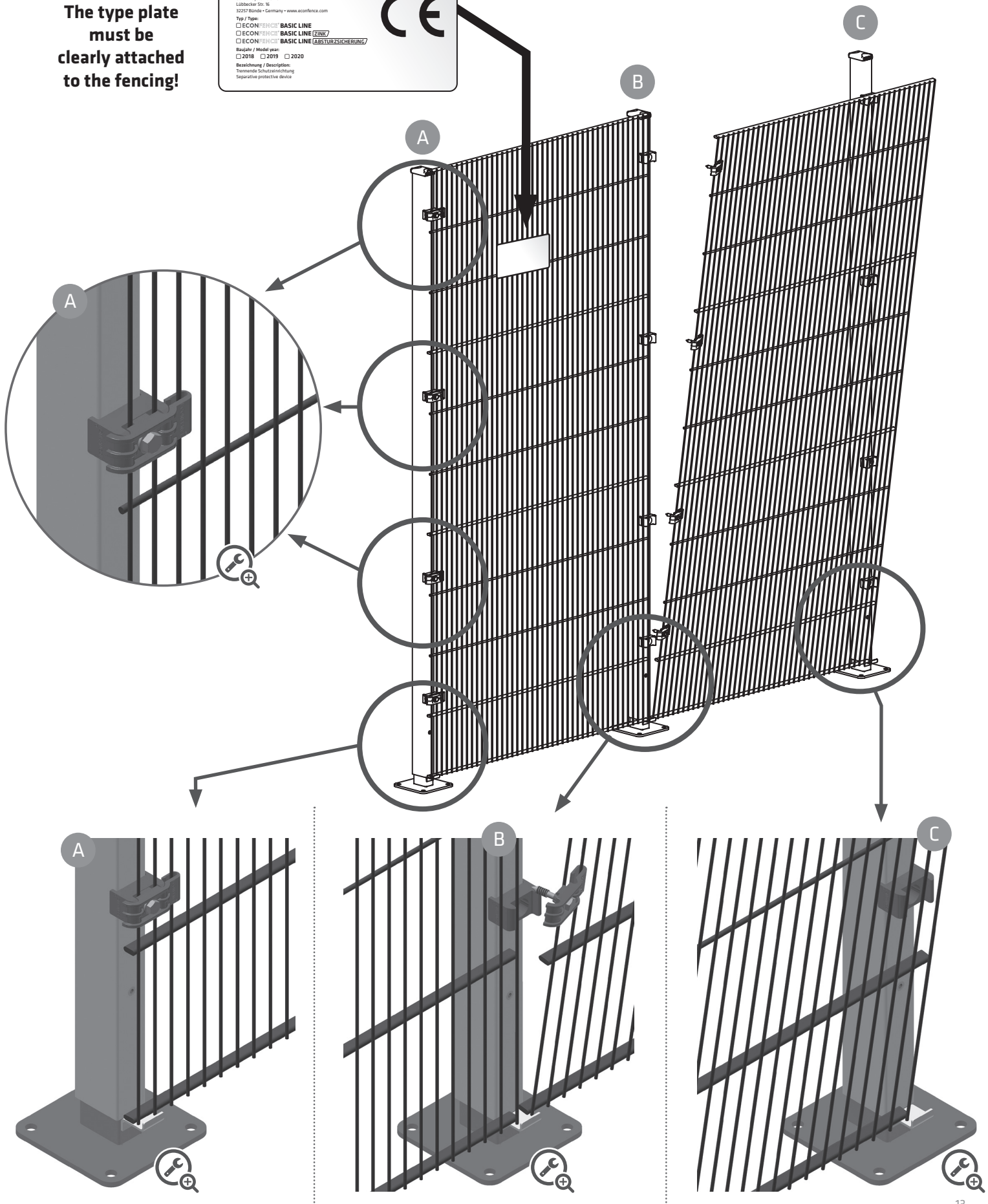
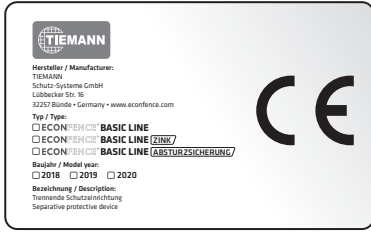
#### Installation of clamping element ZB31004



See page 10



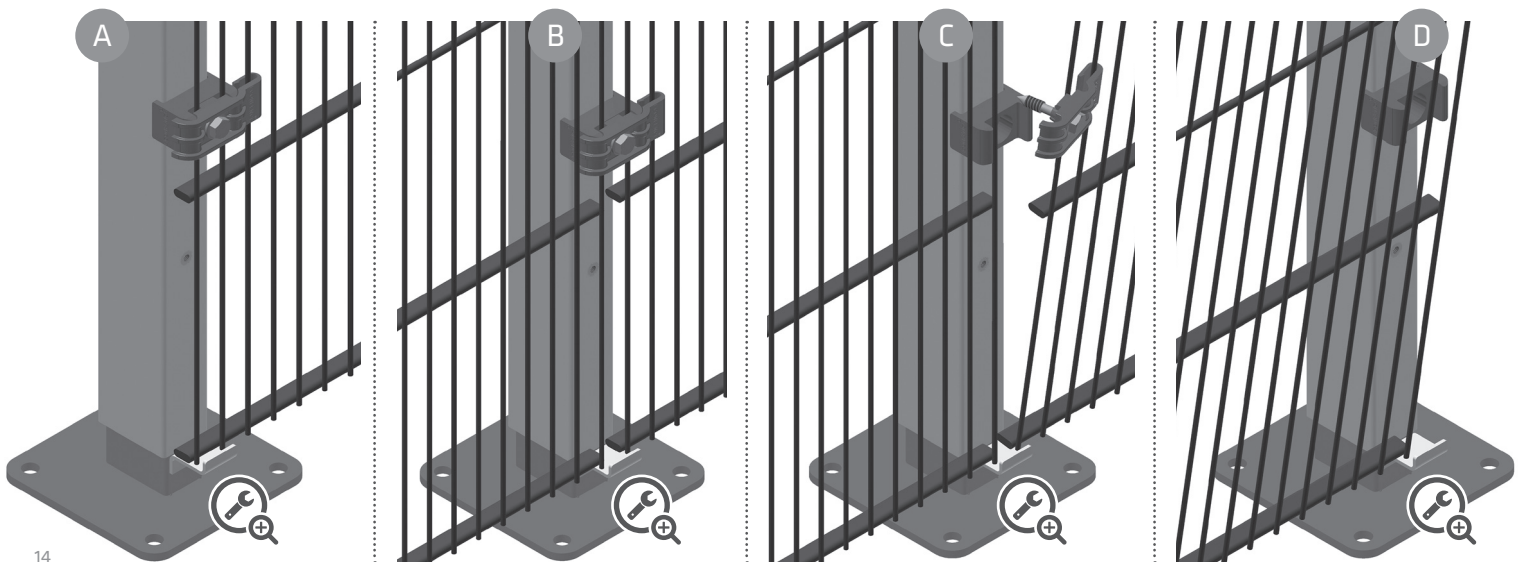
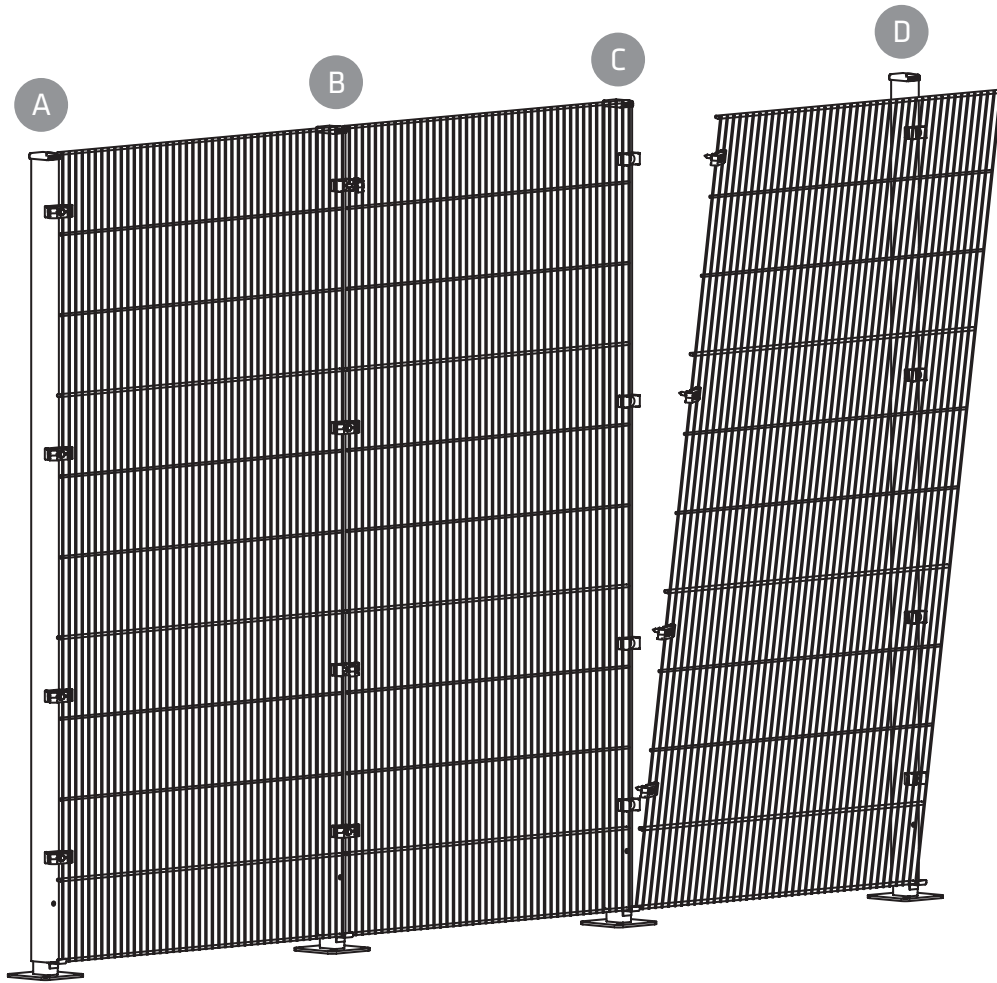
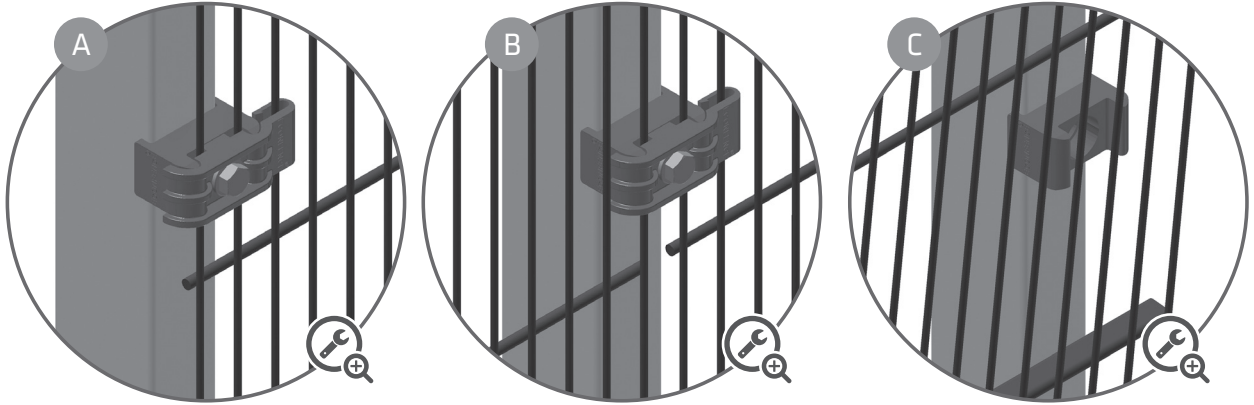
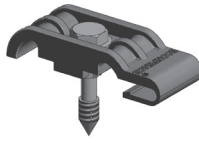
The type plate  
must be  
clearly attached  
to the fencing!



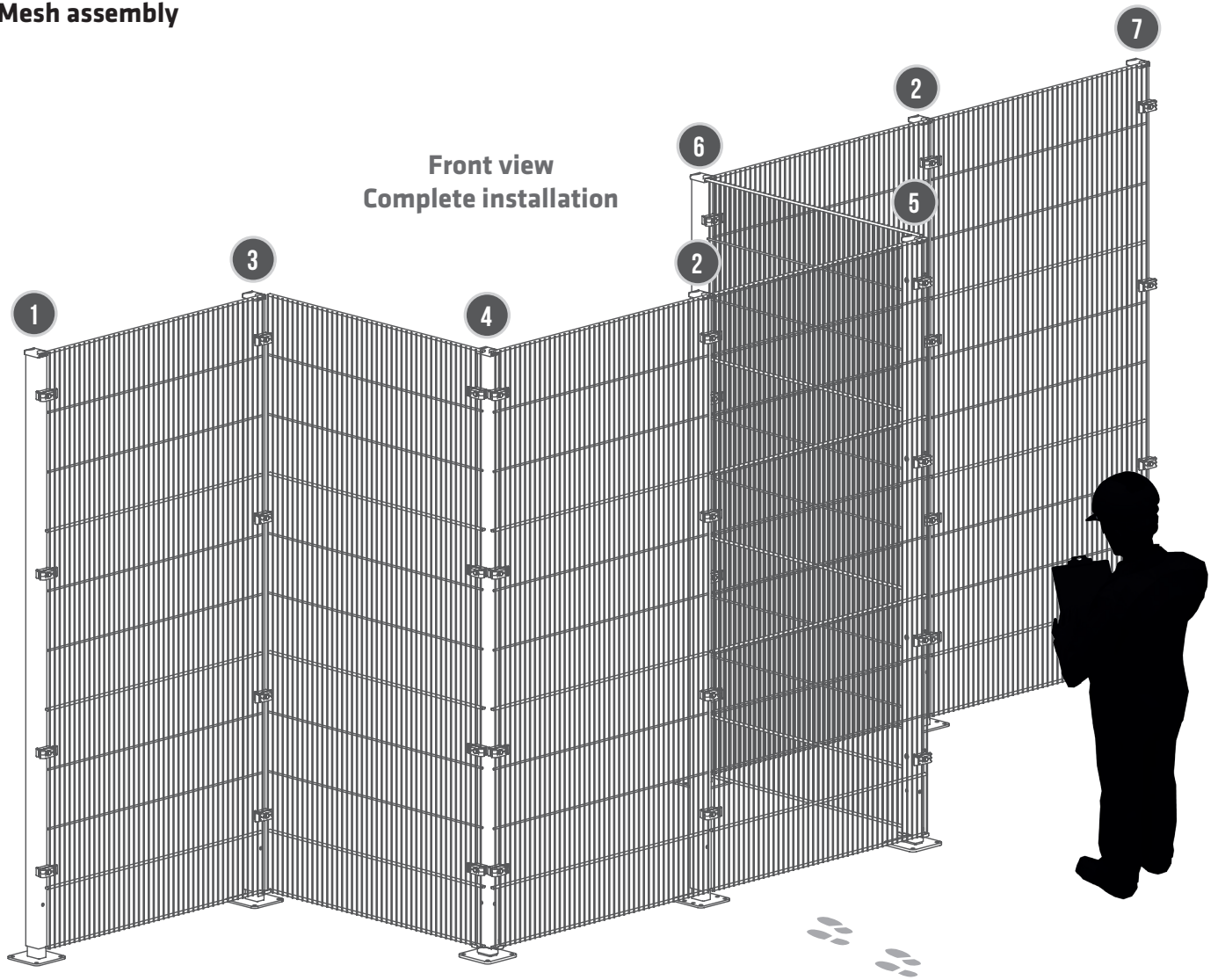
### 5.3. Mesh assembly

#### Installation of clamping element ZB31004

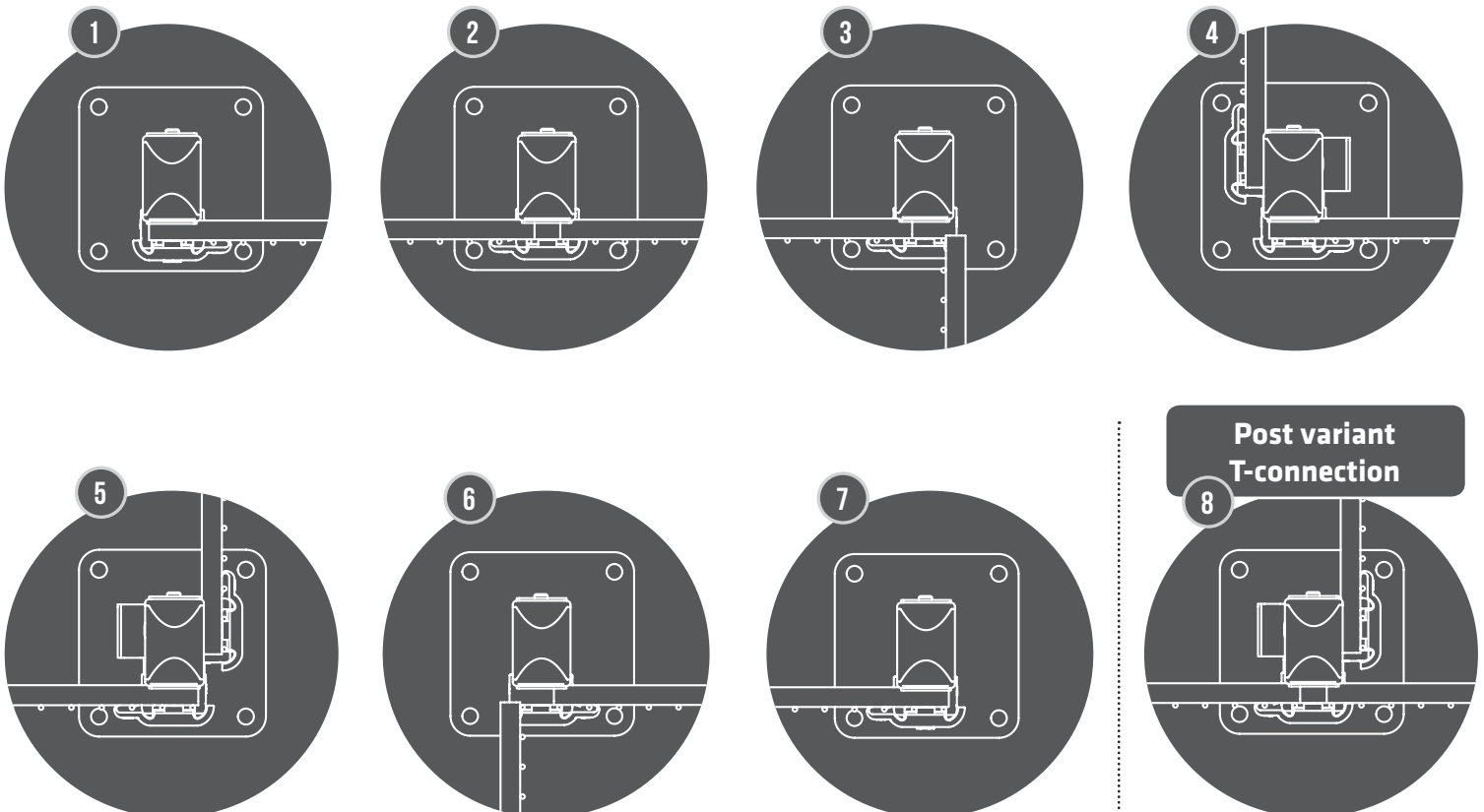
 See page 10



### 5.3. Mesh assembly



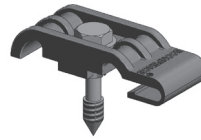
**View of post variants from above - complete installation**



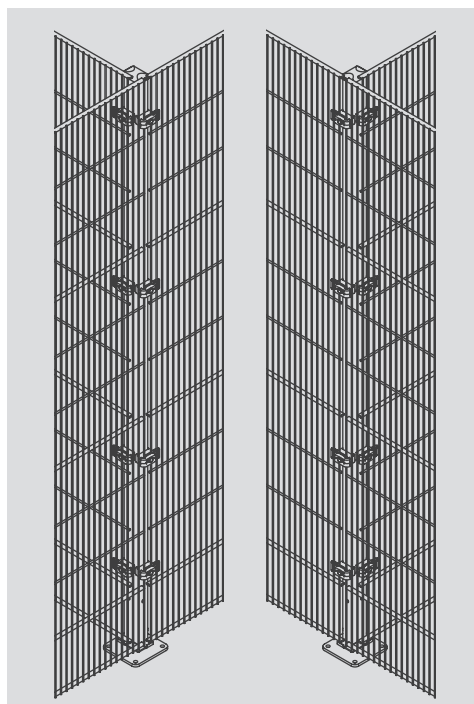
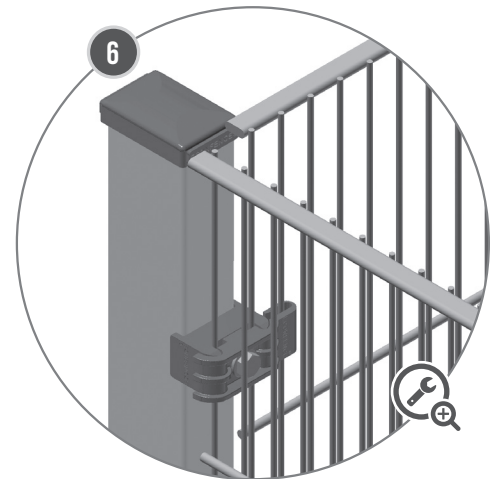
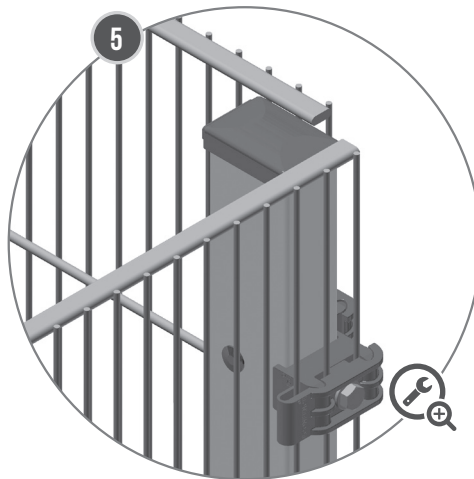
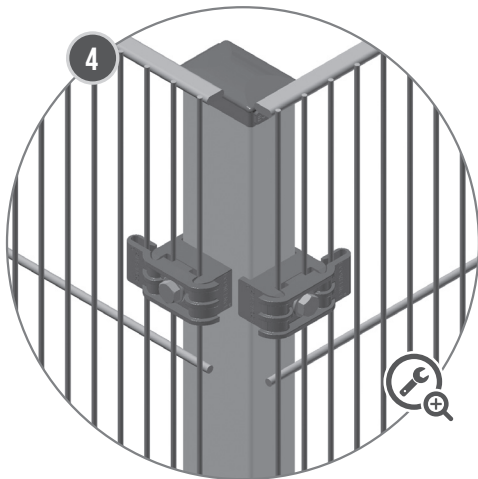
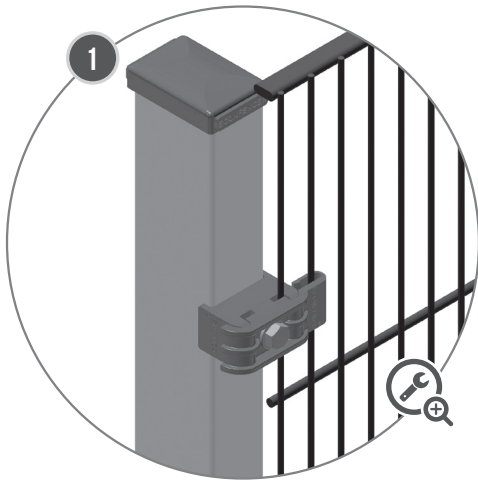
### 5.3. Mesh assembly



See page 10



### Complete installation views of clamping element ZB31004



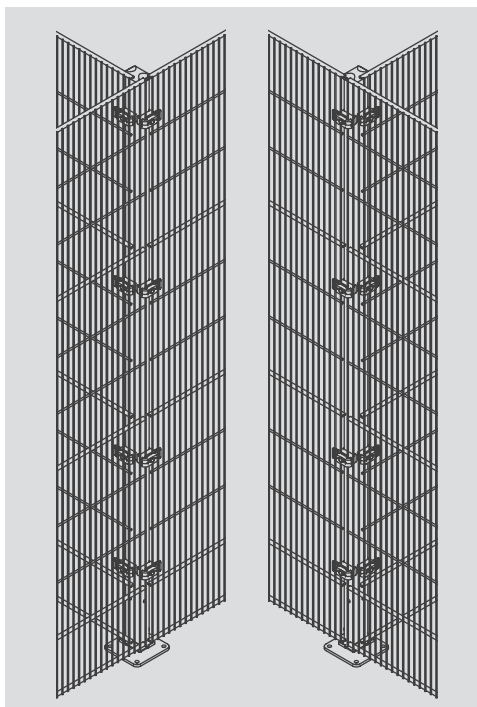
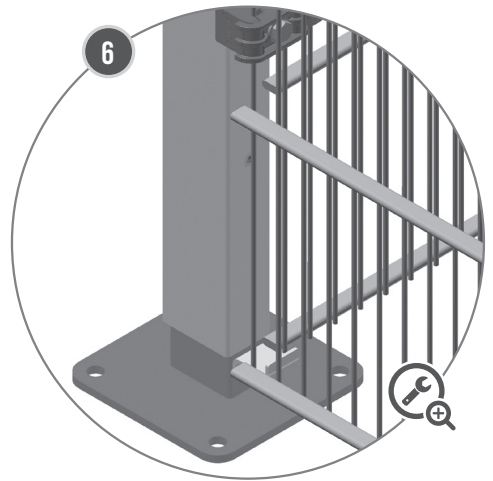
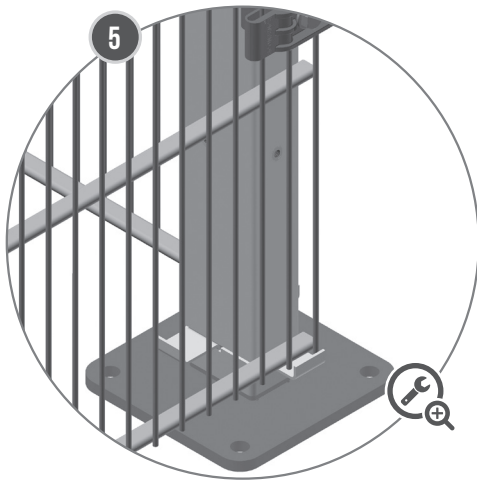
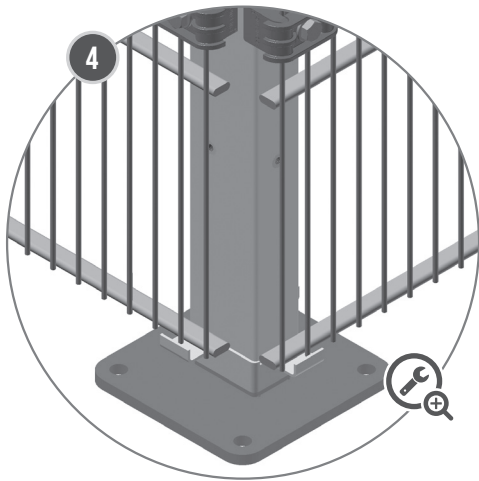
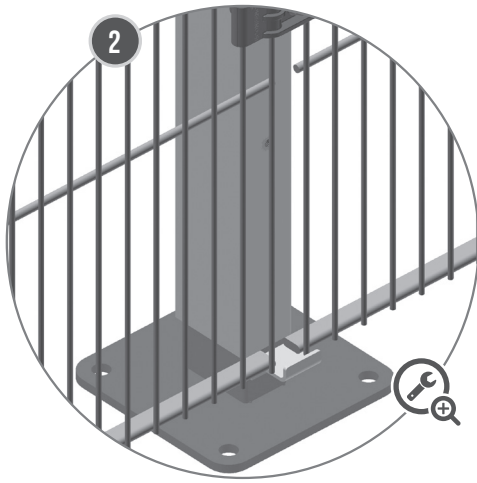
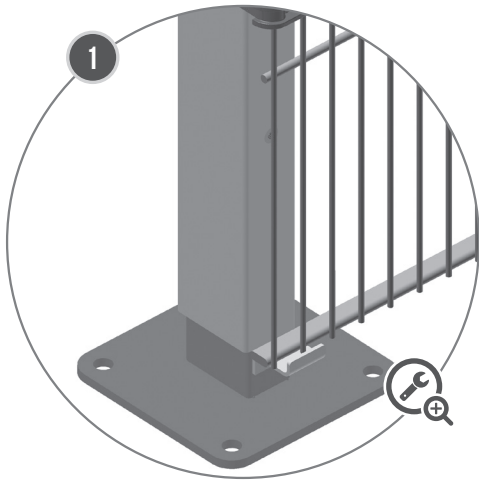
Post variant  
T-connection







Complete installation views of bottom mesh connector



## 5.4. Creating openings in mesh elements



The size and position of the openings must not compromise the stability of the mesh elements.

The minimum safety distances between hazardous areas and openings must be observed according to ISO 13857.



In the case of openings for conveyor technology (such as a conveyor belt or roller conveyor), the requirements of BS EN 619 must be observed.

Wear protective eyewear and ear protectors when creating the recesses with an angle grinder (Flex).

Once the cutting process is complete, the cut sections must be deburred and sealed if necessary. The use of edge trims is recommended.

## 6. Maintenance

The ECONFENCE® protective fencing system is essentially maintenance-free.



Annual checks are to be carried out by specialist personnel to ensure its protective function remains intact. Damaged parts must be replaced.

## 7. Disassembly and disposal

Two people are required for disassembly work and these must both be specialist personnel.



Prior to commencing the disassembly work, the machine or system must be switched off or else made safe.

Any electrical equipment attached to the protective fencing system must be disconnected or else made safe.

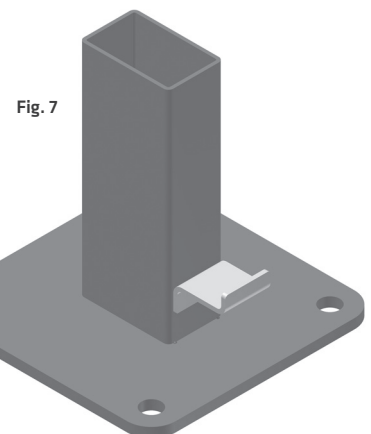
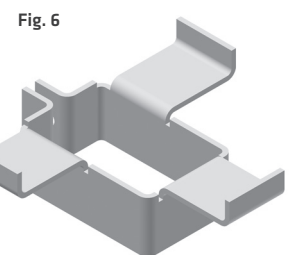
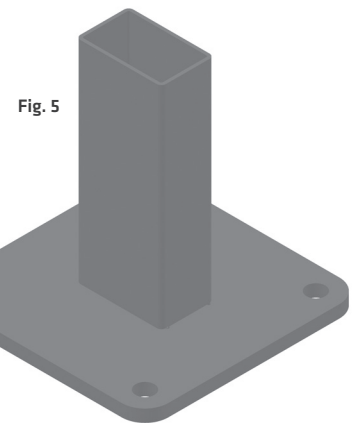
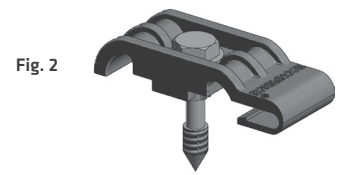
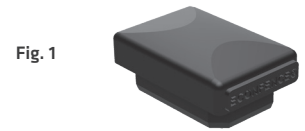
The system must be disposed of in line with local regulations.

## 8. Spare parts and accessories

Order no.	Designation	Fig.
ZB20097	Post cap with collar, black plastic, for a post profile measuring 60x40 mm	1
ZB31004	Clamping element, black plastic, clamping range 4 mm, with pre-assembled steel screw, ST 8x40 mm	2
ZB21008	Mesh support, row post (drive-in version), black plastic, for a post profile measuring 60x40 mm	3
ZB21012	Mesh support, corner post (drive-in version), black plastic, for a post profile measuring 60x40 mm	4
ZB10076	Pin chuck for mesh support (wooden)	
S00001	Post insert base for profiles measuring 60x40 mm, 140x140 mm plate, galvanised	5
B00039	Shelf separator for corner mesh support	6
S00050	Post insert base for series installation of profiles measuring 60x40 mm, 140x140 mm plate, galvanised	7
DIN913 M10x10	Threaded pin for removable post base (2 screws required per base)	
ZB20025	Hilti std stud anchor, galvanised steel, HSA M10x113 50/40/10 for non-cracked concrete	
ZB20027	Hilti capsule adhesive anchor HVU M10x90 with anchor rod HAS M10x90/21 for non-cracked concrete	
ZB40005	Mesh customisations and recesses according to customer layout	

Technical specifications subject to change.

 Should you have any further questions, please contact us on +49 (0) 5223 791995-0.





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**TIEMANN**  
**Schutz-Systeme GmbH**  
**Lübbecker Straße 16**  
**32257 Bünde**  
**Germany**  
**Tel +49 (0) 5223 791995-0**  
**Fax +49 (0) 5223 791995-90**  
**[www.econfence.com](http://www.econfence.com)**  
**[info@econfence.com](mailto:info@econfence.com)**