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## European technical approval

## ETA-13/0690

(English translation, the original version is in German)

Handelsbezeichnung  
*Trade name*

**TSV-1000-oA**

Zulassungsinhaber  
*Holder of approval*

**Trumer Schutzbauten GmbH  
 Maria Bühel Straße 7  
 5110 Oberndorf  
 Austria**

Zulassungsgegenstand  
 und Verwendungszweck

**Bausatz für Steinschlagschutznetz für Energieeintrag mit  
 Maximallast (MEL) von 1000 kJ**

*Generic type and use  
 of construction product*

*Falling rock protection kit with maximum energy level (MEL) of  
 1000 kJ*

Geltungsdauer vom  
*Validity from*  
 bis zum  
*to*

**29.06.2013**

**28.06.2018**

Herstellwerk  
*Manufacturing plant*

**Trumer Schutzbauten GmbH  
 Handelsstraße 6  
 5162 Obertrum  
 Austria**

Diese Europäische technische  
 Zulassung umfasst  
*This European technical ap-  
 proval contains*

**37 Seiten einschließlich 15 Anhänge A**

*37 Pages including 15 Annexes A*



European Organisation for Technical Approvals  
 Europäische Organisation für Technische Zulassungen  
 Organisation Européenne pour l'Agrément Technique

English version (Original in German)  
**EC-CERTIFICATE OF CONFORMITY**  
**1159 – CPD – 0337/13**

In compliance with Directive 89/106/EEC of the Council of European Communities of 21<sup>st</sup> December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products (Construction Products Directive – CPD), amended by Directive 93/08/EEC of the Council of European Communities of 22<sup>nd</sup> July 1993, implemented by the Styrian Bauproduktengesetz 2000, LGBL. Nr. 50/2001, as amended by LGBL. Nr. 13/2010, it is stated that the construction product

**Falling rock protection kit according to ETAG 027**  
**with the trading name**  
**„TSV-1000-oA“**

Maximum Energy level (MEL) = 1000 kJ  
Service Energy level (SEL) = 330 kJ  
Energy level classification: 3  
Residual height after MEL launch: Category A

placed on the market by

**Trumer Schutzbauten GmbH**  
Maria Bühel Straße 7, A-5110 Oberndorf

and produced in the factory

**Trumer Schutzbauten GmbH**  
Handelsstraße 6, A-5162 Obertrum

is subjected by the manufacturer to factory production control and to the further testing of samples taken at the factory in accordance with a prescribed test plan and that the notified body (identification number 1159)

**Amt der Steiermärkischen Landesregierung**  
**Bautechnik und Gestaltung – BauCert Steiermark**  
**Burggasse 13, A-8010 Graz/Austria**

has performed the initial type-testing for the relevant characteristics of the product, the initial inspection of the factory and factory production control and performs the continuous surveillance, assessment and approval of factory production control.

This certificate attests that all provisions concerning the attestation of conformity and the performances described in the European Technical Approval

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were applied and that the product fulfils all the prescribed requirements.

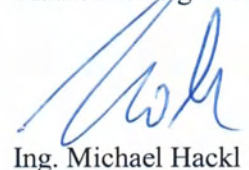
This certificate was first issued on 29<sup>th</sup> June 2013 and remains valid as long as the conditions laid down in the European technical specification or the manufacturing conditions in the factory or the factory production control itself are not modified significantly, the European Technical Approval ETA-13/0690 is valid, or at the latest until 28<sup>th</sup> June 2018. The certificate of conformity comprises 1 page.

For the Provincial Government of Styria  
Head of certification body

Dipl.-Ing. Robert Jansche, MPA

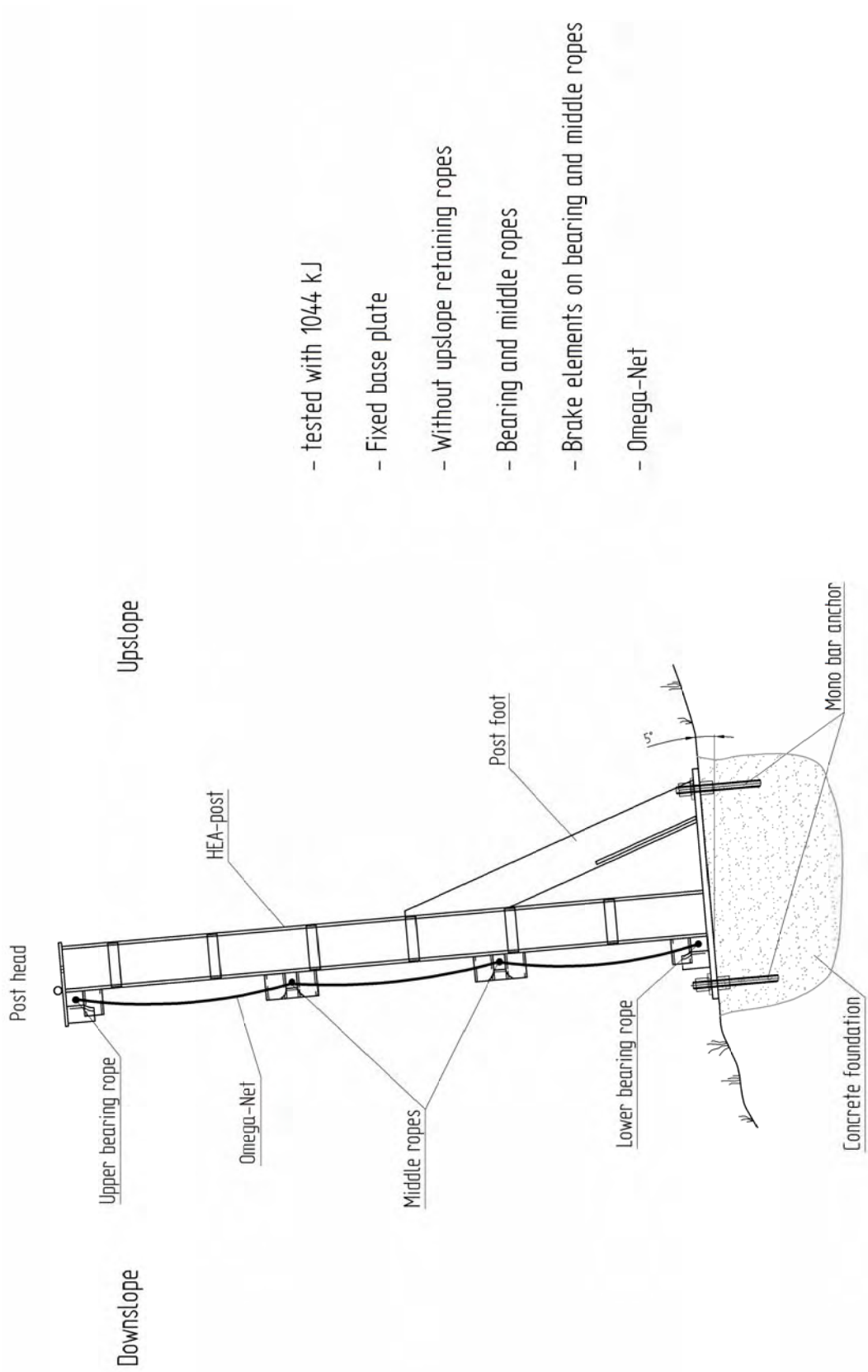


Authorized signatory



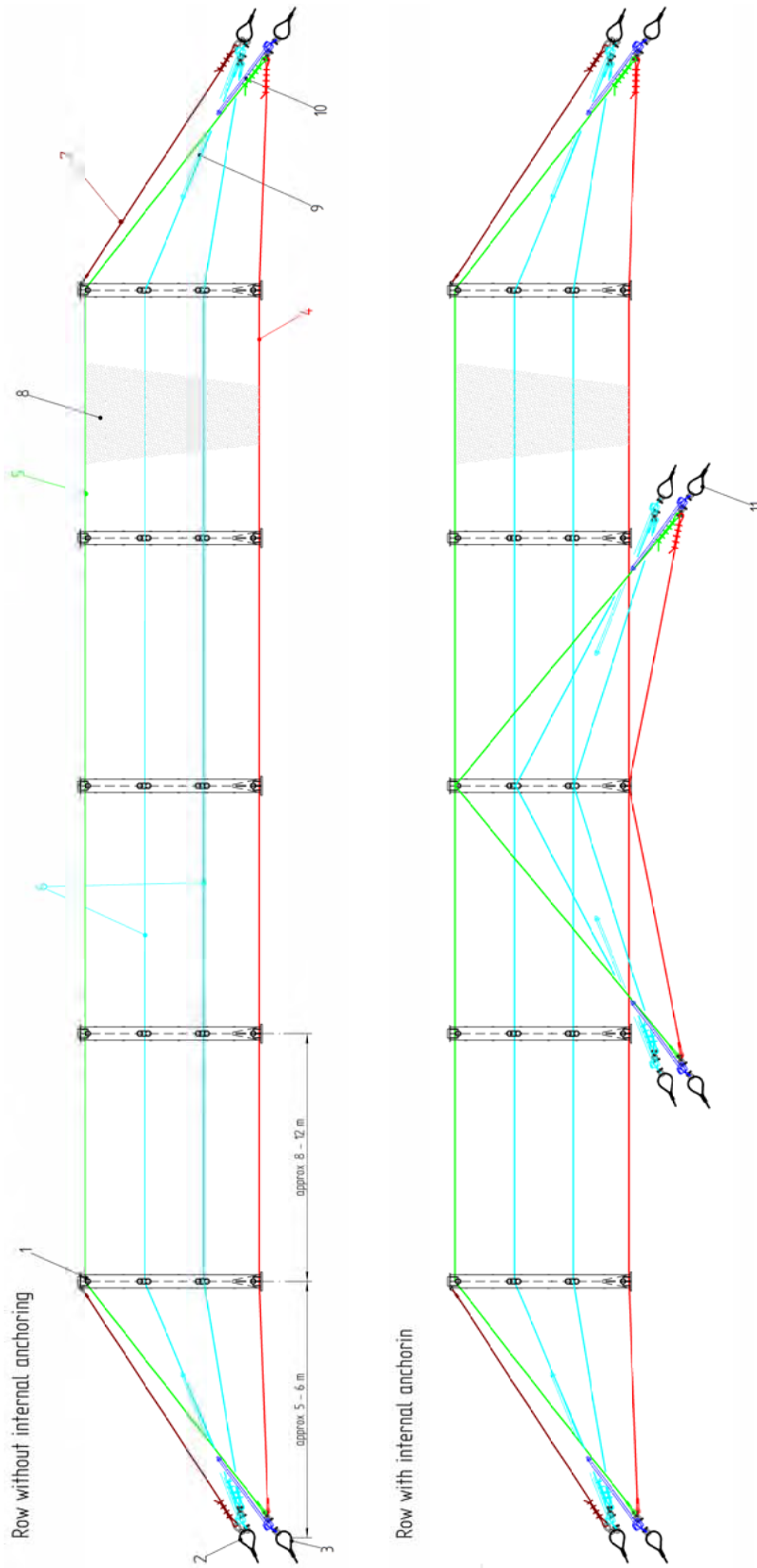
Ing. Michael Hackl

## Rockfall protection system TSV-1000-oA - Lateral View



- tested with 1044 kJ
- Fixed base plate
- Without upslope retaining ropes
- Bearing and middle ropes
- Brake elements on bearing and middle ropes
- Omega-Net

# Rockfall protection system TSV-1000-oA - Frontal View



- Legend**
- 1 Post
  - 2 Lateral anchor for middle ropes and side stabilisation rope
  - 3 Lateral anchor for bearing ropes
  - 4 Lower bearing rope (post foot)
  - 5 Upper bearing rope (post head)
  - 6 Middle ropes
  - 7 Side stabilisation rope
  - 8 Omega-Net 7.5/135
  - 9 Brake element GDV T20/8-3000 for middle ropes
  - 10 Brake element GDV T20/8-1500 for bearing ropes
  - 11 Internal anchoring