

MAC.RO SYSTEM - OM1000

OM 1000

OM 1000 is a Rockfall Barrier able to resist a minimum impact load of 1000 kJ.

Complies with the following Standard and Norms

- "Guidelines for the testing of rockfall protection barriers", Politecnico of Torino.
- Technical standards of A.N.A.S, "Technical Department For The Road Safety", April 2001.

Materials used, conform to the following standards

- **UNI EN 10025** "Hot rolled products of non-alloy structural steels, Technical delivery conditions".
- **UNI EN 5397** "Hot rolled steel finished products Parallel broad-flanged HE Beams, Dimensions and tolerances".
- **UNI EN ISO 1461** "Hot dip galvanised coatings on fabricated iron and steel articles, Specifications and test materials".
- **EN 12385-4** "Steel wire ropes – Safety Part 4, Standard ropes for general lifting applications".
- **UNI EN 10244-2** "Steel wire and wire products, Non ferrous metallic coatings on steel wire zinc or zinc alloy coatings".
- **CNR UNI 10011** "Steel structures, Instructions for design, construction, testing and maintenance".

Technical features

The system has the catch net downhill of the barrier. Since the posts work independently of the catch net, a direct impact on the posts would not impede the immobilisation of the rock boulder by the net. The barrier's components, are designed to be easily transported and assembled in extreme conditions. The barrier has been designed and produced to comply with the norm UNI EN ISO 9001.

Main tests and data

- Full scale dynamic tests on a prototype of 3 panels. Posts spaced at 10m c/c. Nominal height 4m. (Certificate No. 77/08/2004 issued by Politecnico of Torino, Italy):
 - block : 2635 kg
 - speed : 30,27 m/s
 - energy : 1207 kJ
 - deformation : 6,5 m
- Testing of the anchors (Certificate No. 068/02 issued by L.A.T.I.F of Provincia Autonoma di Trento, Italy):
 - uphill anchor : 346 kN
 - lateral anchor : 202 kN.
- Mechanical tests according to L.A.T.I.F. Standards (Technological Laboratory specialised in rope facilities).

Recommended values and loads

- top edge border : 70 cm
- lateral edge border : 500 cm
- uphill anchor load : 415 kN
- lateral anchor load : 415 kN
- downhill anchor load : 195 kN



Figure 1



Figure 2

Table 1 - BARRIER DIMENSIONS

HEIGHT (m)	POST DISTANCE (m)
4	10

