

PROTECTION AGAINST HOSTILE VEHICLE INTRUSION

MacSafe® is a new vehicle incursion prevention system, developed by Maccaferri in response to a need to upgrade security in public places.

The system is crash test rated and accredited by the IUAV (University of Venice) and a recent installation in Nice is designed to stop a 19 tonne truck travelling at 50km/h, impacting at 20°.

Advantages of **MacSafe®**:

- M** Rapid and easy to install
- M** Can be installed on any surface or soil
- M** Simple maintenance
- M** Easily removed cable
- M** No visible fixings
- M** Aesthetically pleasing and unobtrusive



MacSafe® completed installation adjacent to pedestrian zone



Fixing posts to ground foundations



Energy absorption compression brakes

MACSAFE® OUR NEW HOSTILE VEHICLE MITIGATION SYSTEM

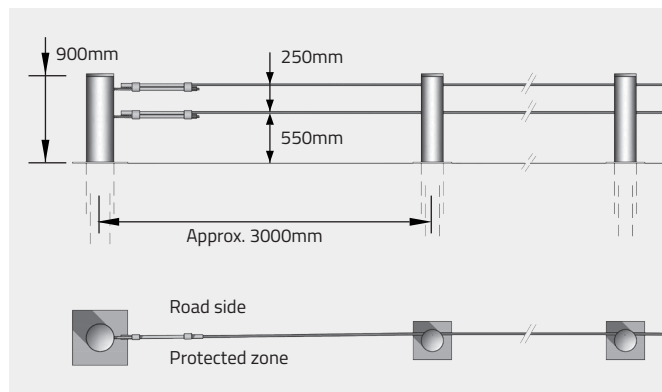
The **MacSafe®** system consists of a minimum two high tensile steel cables, anchored at each end with our patented energy dissipation system.

The cables are supported on tubular steel posts which are secured to ground foundations.

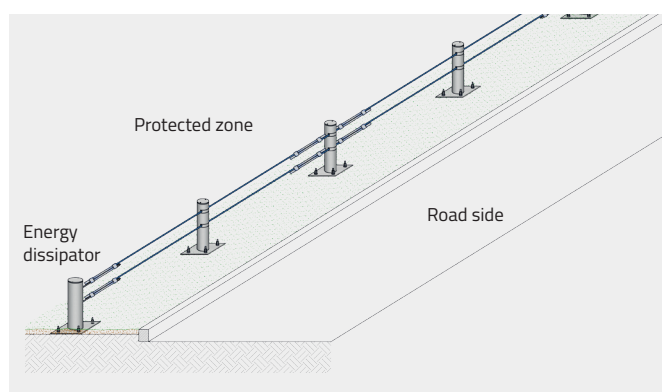
The cables are secured with a special tamper proof fixing which allows the cables to be removed during times of reduced threat, or when access is necessary.

Benefit:

The vehicle impact energy is distributed through the posts and cables and absorbed by the energy dissipators through compressive deformation rather than friction. This ensures better and more reliable performance throughout the long-life of the barrier.



Typical installation



Schematic

Full-scale vertical impact tests were carried out at the Maccaferri Innovation Center in Bolzano, Italy, and validated by the IUAV (University of Venice).

Two successive tests were carried out; the first at 130% of the maximum energy load, followed by the second at 65%, to stimulate multiple impacts. No repairs were carried out between the tests.



Performance testing



Performance testing

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