Services

Design

All Fracasso Hellas road safety systems are designed by Fracasso R&D department which features a unique 20-years experience in crash tests and in the most advanced methods of design. By using computational methods (finite elements analysis F.E.A.), simulations of the crash of various types of vehicles to the road barriers are carried out. These computer simulations result in the fine tuning of the barrier design. After all the parameters are fixed, the final barrier design is tested in the real field by an actual crash test.

Supply

Fracasso Hellas supplies road safety systems according to the European standards (EN 1317). With a broad variety of certified systems in its portfolio (more than 40), Fracasso Hellas meets all the European requirements for road safety.
In addition to the above, Fracasso Hellas supplies safety barriers according to the existing National standards.
All the products of Fracasso Hellas are produced by the highest manufacturing and quality standards followed in its manufacturing facilities including an integrated hot dip galvanising unit.

Installation

Fracasso Hellas installs and/or provides the technical support for the installation of its road safety systems. This service can be supplied by specialised personnel with dedicated equipment at the highest working standards. All the installation activities are described in the “Installation manual”, which is always included in the supply documentation of every safety device. The high level of workmanship guaranties the performance of the road safety system according to the EN 1317.

Technical support

Fracasso Hellas technical team can provide full support for all safety requirements involved in the design of modern highways.
Our technical team can advise and consult on the maintenance activities of the road safety systems covering any aspect of the life cycle of our products.


H3 A W5 - Bridge on Meduna River - Pordenone - Italy - 2008


H4a A W8 - Mestre Ringroad - Mestre - Italy - 2008

H4b B W8 - Bridge on Mestre Ringroad - Mestre - Italy - 2008


Bridge on Padua Ringroad - Padua - Italy - 2005

FRACASSO hellas

Fracasso Hellas

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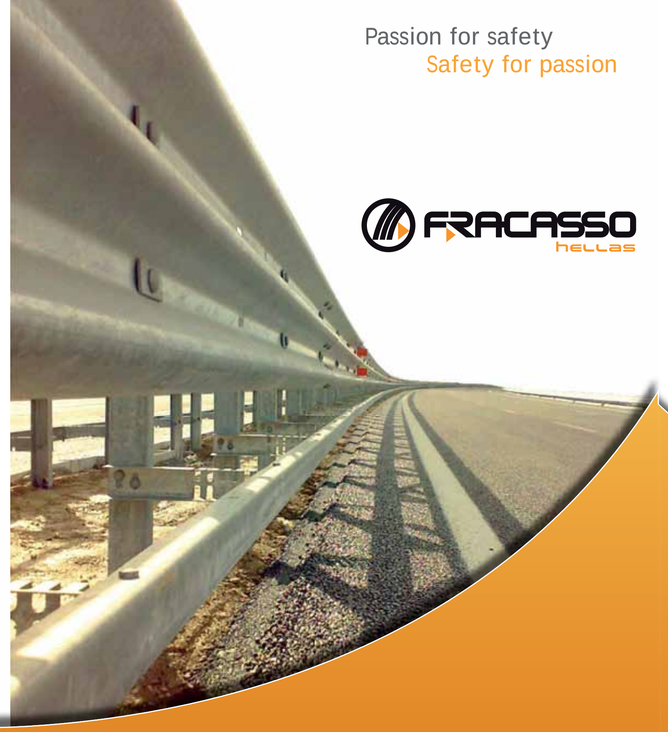


Passion for safety
Safety for passion

FRACASSO hellas

Fracasso Hellas S.A.
An Intrakat S.A. (Greece) and Fracasso S.p.A. (Italy) cooperation for Road Restrain Systems according to National and EN specifications.


Fracasso Hellas production facilities within Intrakat factory, Larissa


Safety Barriers on Bridge + Acoustic Panels


Safety Barriers


Safety Barriers on Bridge

Fracasso Hellas S.A.

Fracasso Hellas is a cooperation between Fracasso S.p.A Italy and Intrakat S.A. Greece whose purpose is the design, manufacturing, selling and installation of Roads Restrains Systems.

- Fracasso S.p.A. is the European leader with more than 50 years of experience in design, manufacturing and installation of Highway Equipment such as: Safety barriers, parapets, acoustic barriers and steel culverts.

- Intrakat S.A. is a Greek technical and industrial company holding a leading position in design and implementation of complex, high technology construction projects within the European market.

By establishing Fracasso Hellas, Fracasso S.p.A. and Intrakat S.A join forces with common:

Our Vision
Improve the safety of the Greek roads by introducing innovative and reliable road restrain systems.

Mission
To become the leader in design, manufacturing and installation of Road Safety Systems in Greece.

Values
Maximize Customers’ satisfaction through our commitment for supplying solutions, not only products.
Ensure the leadership of our products by innovation in design.
Constantly meet new market demands by developing and testing new restrain systems.

European standard EN 1317-2

Introduction

According to the EN 1317 the performance safety level of a Road Safety System is evaluated upon three main criteria: Containment Level, Impact Severity Index and Working Width of the system. According to these criteria the performance of Fracasso Hellas road safety systems are verified by full scale crash tests carried out in certified European laboratories.
The EN 1317 consists of 5 parts: EN 1317-1,2,3,4,5.

Containments levels:

The containment levels provided by the EN 1317-2 European regulations for the safety barriers, are the following:

N1, N2, H1, H2, H3, H4a, H4b



Impact Severity Index

The impact severity index for the occupants of the vehicle, is described as following:

ASI (acceleration severity index): it measures the acceleration resulting during the impact for a person sitting inside the vehicle, with safety-belts fastened. Greater ASI levels induce higher injury risks. If maximum ASI values exceed 1.0 or 1.4, then in some cases, the impact consequences are considered to be dangerous or even lethal for the passengers.

A	ASI ≤ 1.0
B	1.0 < ASI ≤ 1.4
C	1.4 < ASI ≤ 1.9



Working width of the barrier (deformation of the barrier)

The working width of the barrier (W) is defined as the distance between the side of the barrier to the traffic, before the crash, and the maximum dynamic lateral position of any main part of the barrier.

The classes of the working width are:

W1, W2, W3, W4, W5, W6, W7, W8.


Crash test





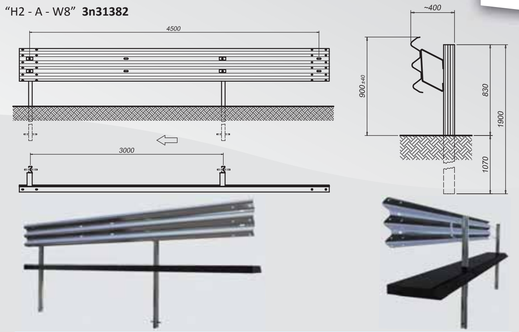




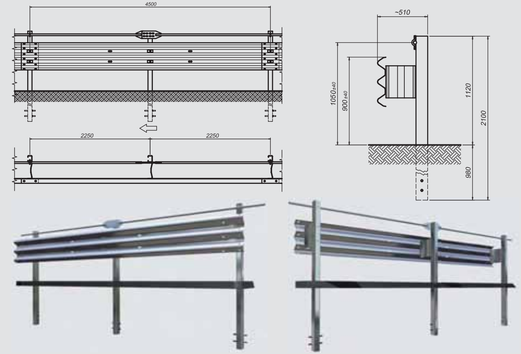

Indicative configurations

Barriers on ground

"H2 - A - W8" **3n31382**

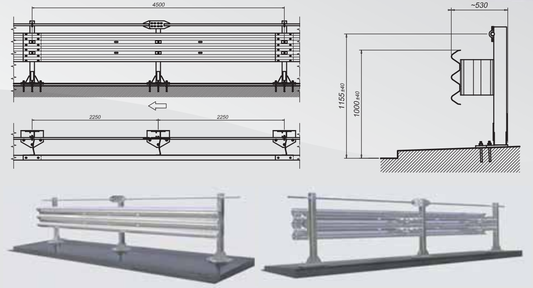


"H2 - A - W4" **3n32312**



Barriers on bridge

"H2 - A - W4 " **3n32122**



"H4b - B - W4 " **3n31857**