



S.M.A. Crash Cushions



CE

Industry A.M.S. s.r.l. (Automation Manufacturing Services) designs and develops industrial automation solutions, automotive industrial systems and road safety devices.

In over 40 years of activity INDUSTRY A.M.S. has grown according to the following guidelines:



These features can be identified in all company's products and in particular in the S.M.A. Crash Cushions which distinguish themselves for their high security, incredible strength and wide-ranging suitability.

S.M.A. Crash Cushions are designed to assure the highest level of passive safety. For their particular system of energy absorption, S.M.A. Crash Cushions restrain and attenuate the crash effect on the passengers of the vehicle. Moreover for standard impacts, according to the UNI EN 1317, they prevent passengers from undergoing fatal injuries.



S.M.A. Crash Cushions

are all redirective and bidirectional. They have been successfully tested according to the UNI EN 1317-3 standard and the entire S.M.A. Crash Cushions family is CE Marked.

The crash test results have been certificated by the authorized EU Notified Body, CSI, Milan, Italy.

S.M.A. Crash Cushions presents the most complete product range of the market that can be positioned on every kind of junction or in front of an obstacle.

S.M.A. Crash Cushions (safety modular absorbers) are totally made of coated steel, they can undergo every kind of climate change and guarantee up to a duration of 20 years.

Foundation notes

- Installation on reinforced concrete basement
 - Installation on hot mix asphalt
- Details are reported in our installation manual.

Industry A.M.S. invites you to visit its website www.smaroadsafety.com and its Youtube Channel [user\attenuatoriurtoSMA](#) to get further information about S.M.A. Crash Cushions performances.



Why choosing S.M.A. crash cushions

High safety

Top performances in terms of protection of car occupants.

Reusability (80%) after a standard impact

Thanks to their strength, after a standard impact it is possible to change only the absorbing panels of the S.M.A. crash cushion. Consequently S.M.A. crash cushions are very simple and inexpensive to restore, as you can see from the pictures aside.

The shortest one

The innovative S.M.A. crash cushions are the shortest one among the others available on the market. This increases safety and allows to install them in place where previously it was not possible to do it (tunnels and divergence areas).

No maintenance required

S.M.A. crash cushions require no maintenance because they are totally made of treated steel. They resist to the effects of atmospheric agents or climate change, like precipitations, ice, wind, dust, pollutants. The efficiency of the device is always intact.

Life cycle

S.M.A. crash cushions market costs is the lowest considering their life cycle. They are:

- Totally made of treated steel
- Particularly robust (strong)
- The shortest ones
- Highly reusable in case of impacts
- Easy to be restored on site

For more details visit our site www.smaroadsafety.com and the Youtube channel [user\attenuatoriurtoSMA](https://www.youtube.com/user/attenuatoriurtoSMA)



Ripristino
attenuatori d'urto
SMA 80 dopo
crash test.

Crash Cushion **SMA 110P**

Redirective

Successfully tested at level 110 of EN
1317-3

Easy to install

Reusability (up to 80%)

No maintenance required

High safety

The shortest one



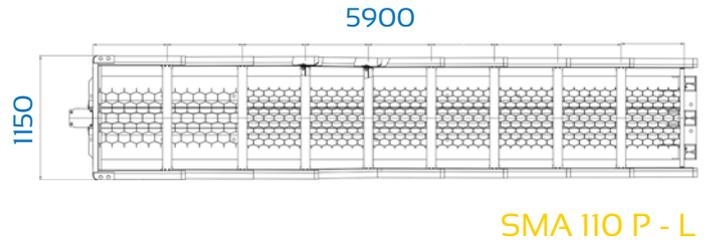
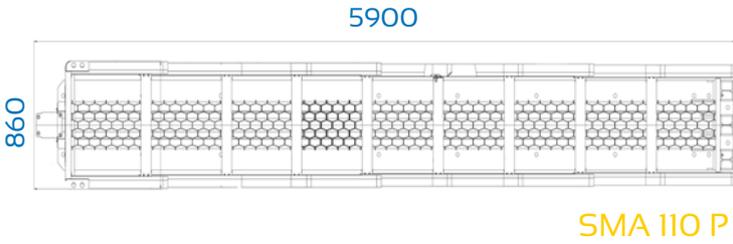
Totally made of steel (Fire Safety Class O)

www.smaroadsafety.com
[youtube:user/attenuatoriurtoSMA](https://www.youtube.com/user/attenuatoriurtoSMA)



Certificato numero / Certificate number

0497/CPR/4821



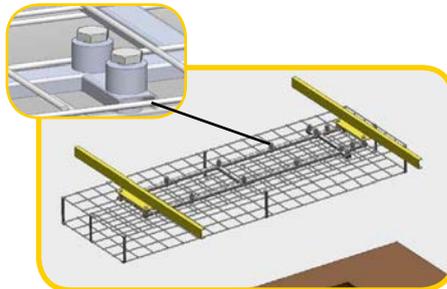
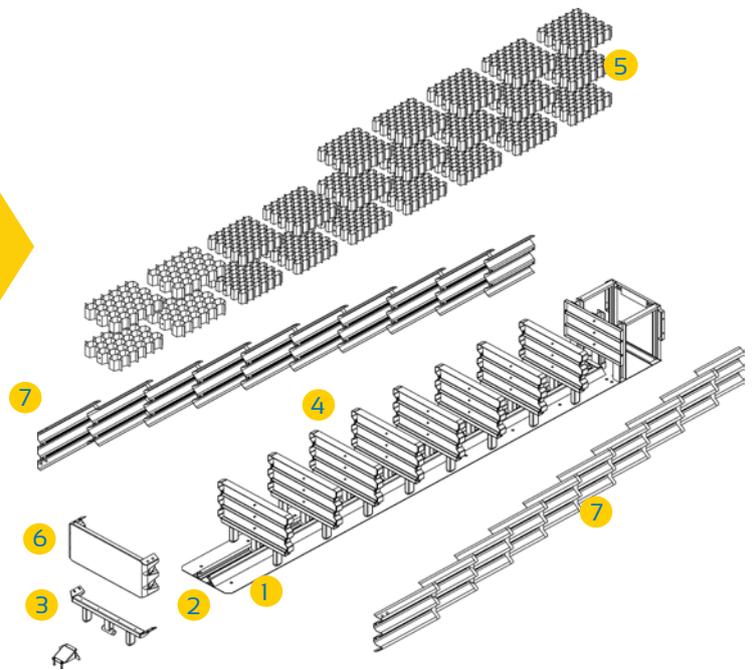
S.M.A. 110P

Redirective

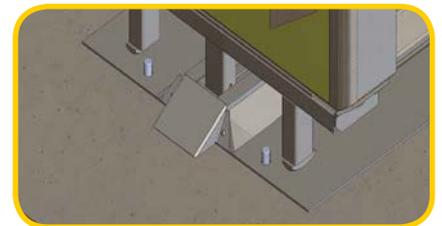
SMA 110 km/h is a particularly strong crash cushion: it has even passed an experimental test at a speed of 130 km/h without modifying the safety index foreseen by the UNI EN 1317 normative.

The base structure (1), completely in electro-welded galvanized steel, is made of a 5/6 mm thick plate and a monorail guide (2) for the sliding bars (3) linked to retaining frames (4) of the absorbing cells (5). The bumper or frontal panel (6) is the rigid connection among the sliding side panels (7), which after the impact slide one upon the other driven by an appropriate shift system.

At the same time the central frames (4), connected to a couple of sliding side panels (7), crash the cells (5) that gradually dissipate the kinetic energy coming from the impact.



Installation with bolts



Installation with chemical



Concrete basement

Available Models

	SMA 110 P	SMA 110 P-L
Width	860 mm	1150 mm
Length	5900 mm	5900 mm
Height	760 mm	760 mm

Crash Cushion SMA 110 Wide

Redirective

Successfully tested at level 110 of EN
1317-3

Easy to install

Reusability (up to 80%)

No maintenance required

High safety

The shortest one



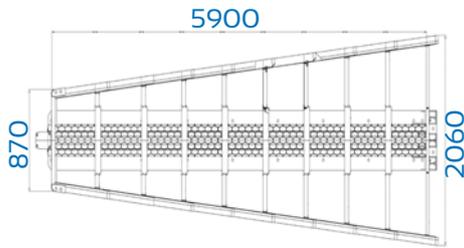
Totally made of steel (Fire Safety Class O)

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[youtube:user/attenuatoriurtoSMA](https://www.youtube.com/user/attenuatoriurtoSMA)

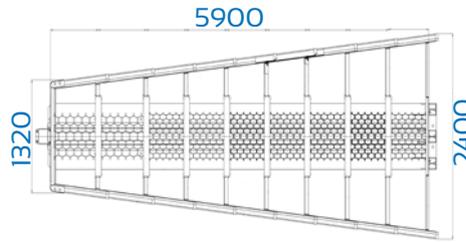


Certificato numero / Certificate number

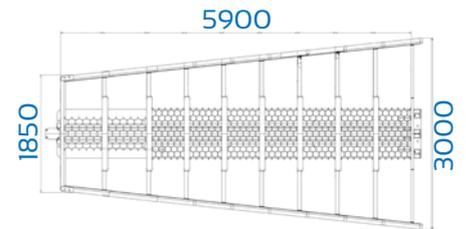
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SMA 110 W - S



SMA 110 W



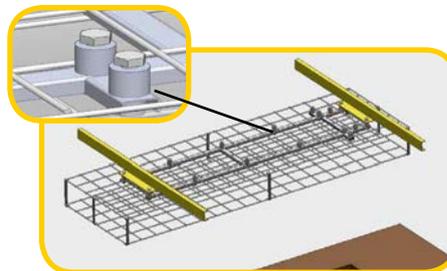
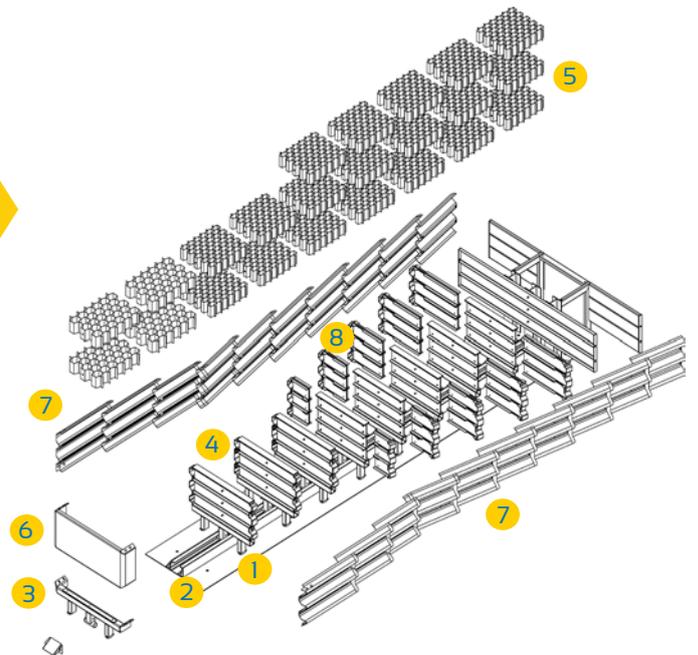
SMA 110 W - L

S.M.A. 110W

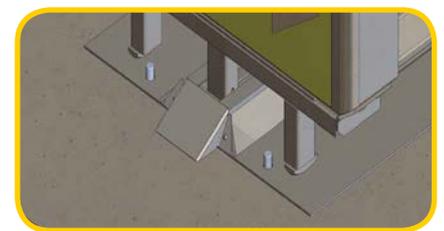
Redirective

It protects junctions and highway exits where the speed limit is over 100 km/h.

The base structure (1), completely in electro-welded galvanized steel, is made of a 5/6 mm thick plate and a monorail guide (2) for the sliding bars (3) linked to retaining panels (4) of the absorbing cells (5). The bumper or frontal frames (6) is the rigid connection among the sliding side panels (7), which after the impact slide one upon the other driven by an appropriate shift system. At the same time the central frames (4), composed of additional panels (8) giving the V-shape to the crash cushion, connected to a couple of sliding side panels (7), crash the cells (5) that gradually dissipate the kinetic energy coming from the impact.



Installation with bolts



Installation with chemical anchors



Concrete basement

Available Models

	SMA 110 W - S	SMA 110 W	SMA 110 W-L
Width	2060 mm	2400 mm	3000 mm
Length	5900 mm	5900 mm	5900 mm
Height	760 mm	760 mm	760 mm



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