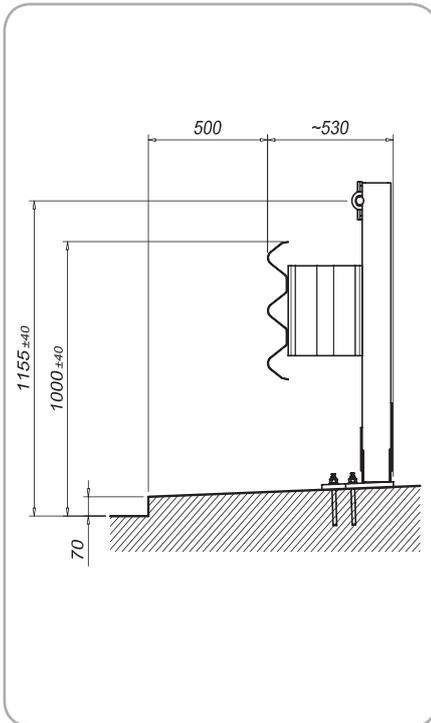
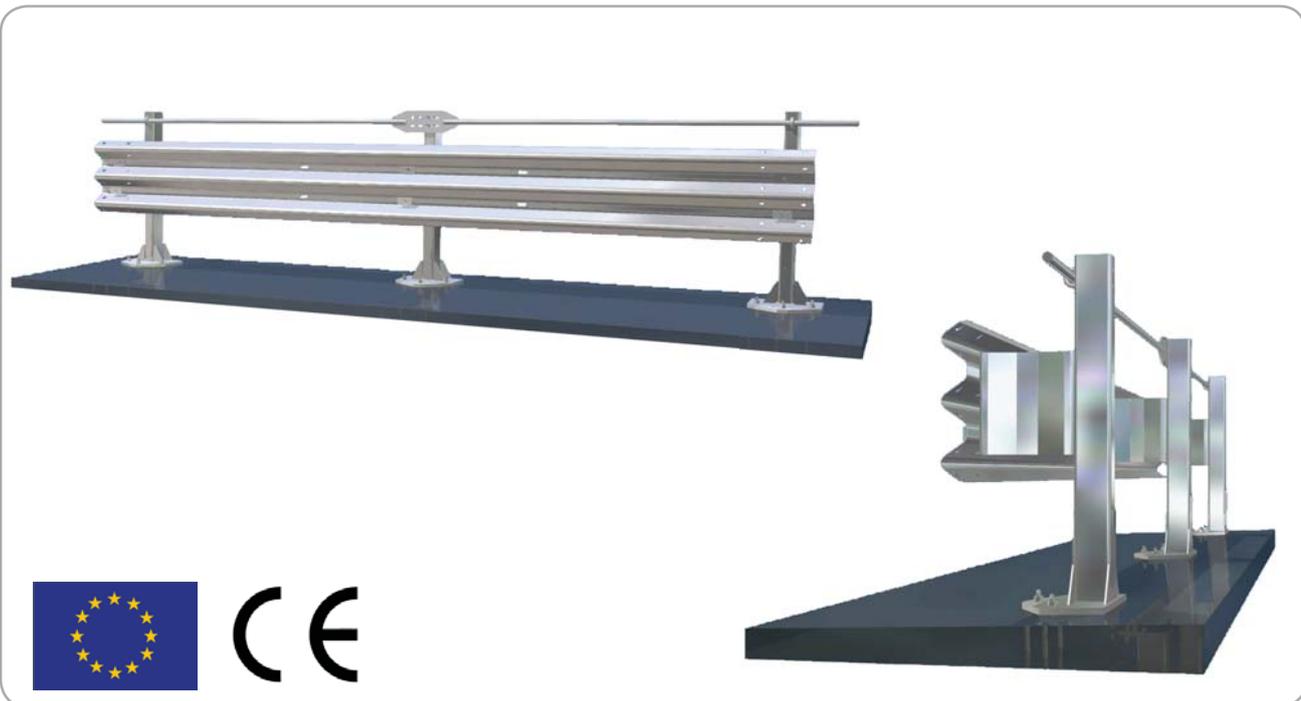


4SAFE[®]
SINGLE SIDED SAFETY BARRIER ON BRIDGE
H2-W4-A (3n32122)


| Performance | |
|---|-------------|
| Containment level | H2 |
| Acceleration Severity Index "ASI" | A |
| Working width | W4 (1,10 m) |
| Extreme lateral position of the vehicle | 1,20 m |
| Dynamic deflection | 0,80 m |

| Characteristics | |
|--|------------------|
| Height out of ground | 1155 mm / 900 mm |
| Transversal overall dimensions | 530 mm |
| Centre to centre between posts | 2250 mm |
| Tested minimum length (without terminal end) | 78 m |


Descrizione

Supply and installation of a 3-wave safety barrier, thickness 2,5 mm, C post 120x80x30 mm th.5,9 mm, H= 1100 mm, fixed to ground every 2250 mm by anchor bolts, spacers 310x80x5,9 mm, with an upper threaded retaining bars Ø 32 mm with welded plates, assembled with nuts and bolts and provided with reflectors.

S235JR-S355JR steel quality according to EN 10025 EN 10025 and FeB44k according to (D.M. 09/01/1996)

Hot dip galvanization according to UNI EN ISO 1461

Nuts and bolts according to UNI EN ISO 898-1, UNI EN 20898-2

The safety barrier has successfully passed the tests required by EN 1317, part 1 and 2.

Certificate CE n. AISICO/039/CPD/2010


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4SAFE® SINGLE SIDED SAFETY BARRIER ON BRIDGE H2-W4-A (3n32122) PAINTING VERSION

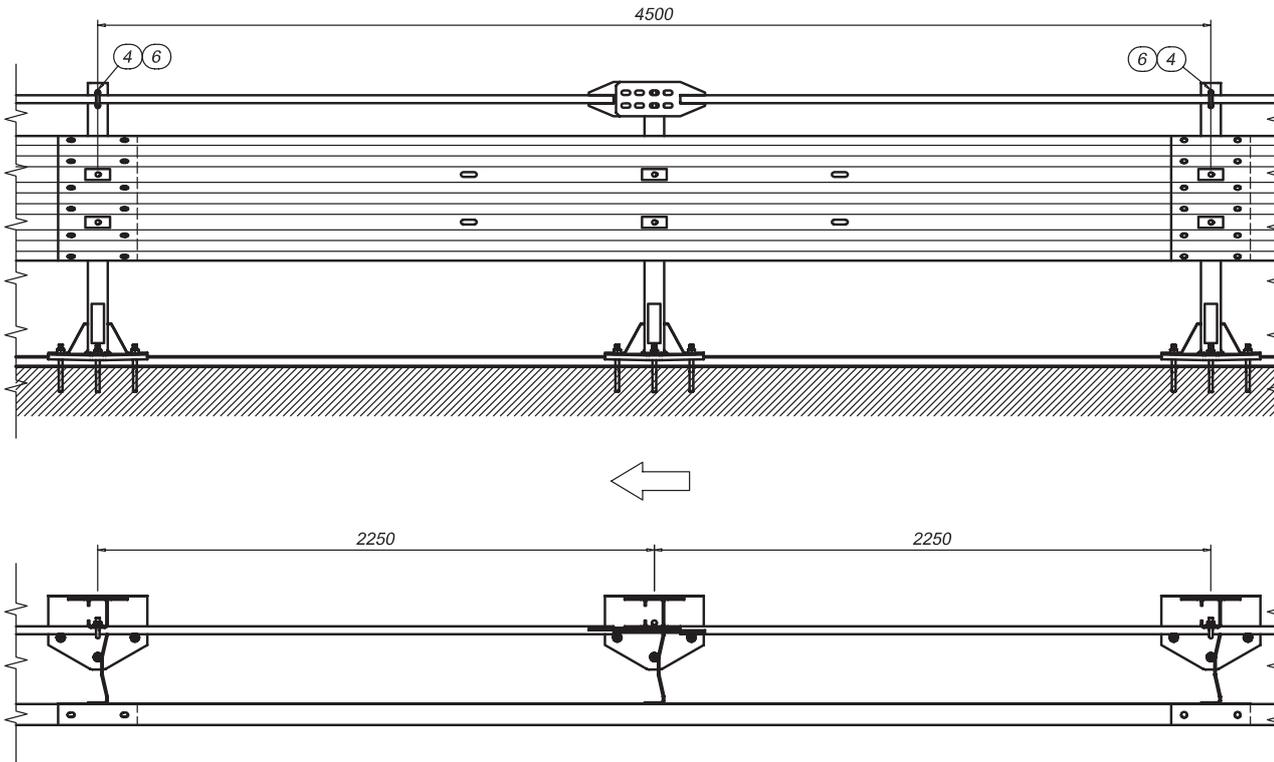


Painting process

Following are the main powder painting process phases for safety barrier tapes and posts:

1. spray degreasing;
2. first spray rinse;
3. second spray rinse;
4. phosphatising;
5. spray rinse;
6. spray rinse with demineralised water;
7. rinse with demineralised water ramp;
8. drying;
9. air cooling at room temperature;
10. power painting, with deposit required to achieve the protection thickness listed in the Specifications;
11. oven polymerisation;
12. air cooling at room temperature.

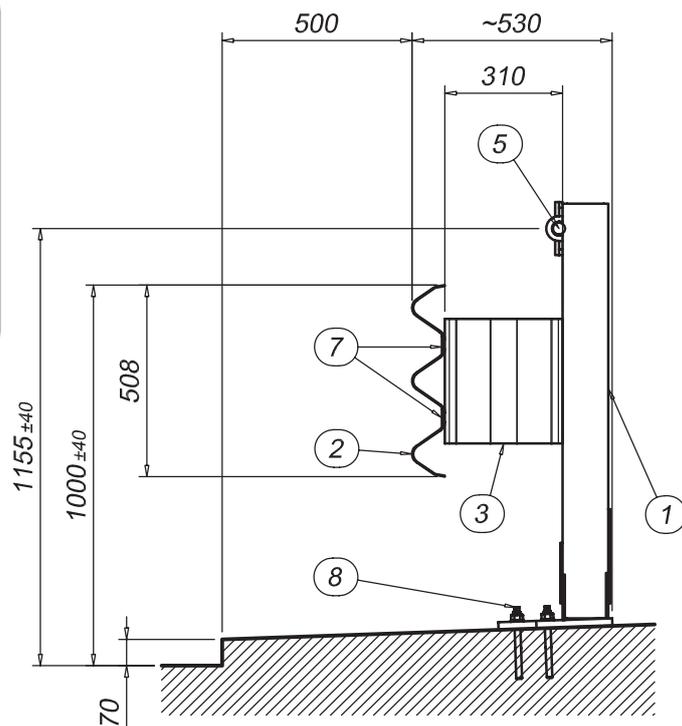
Elevation



Section

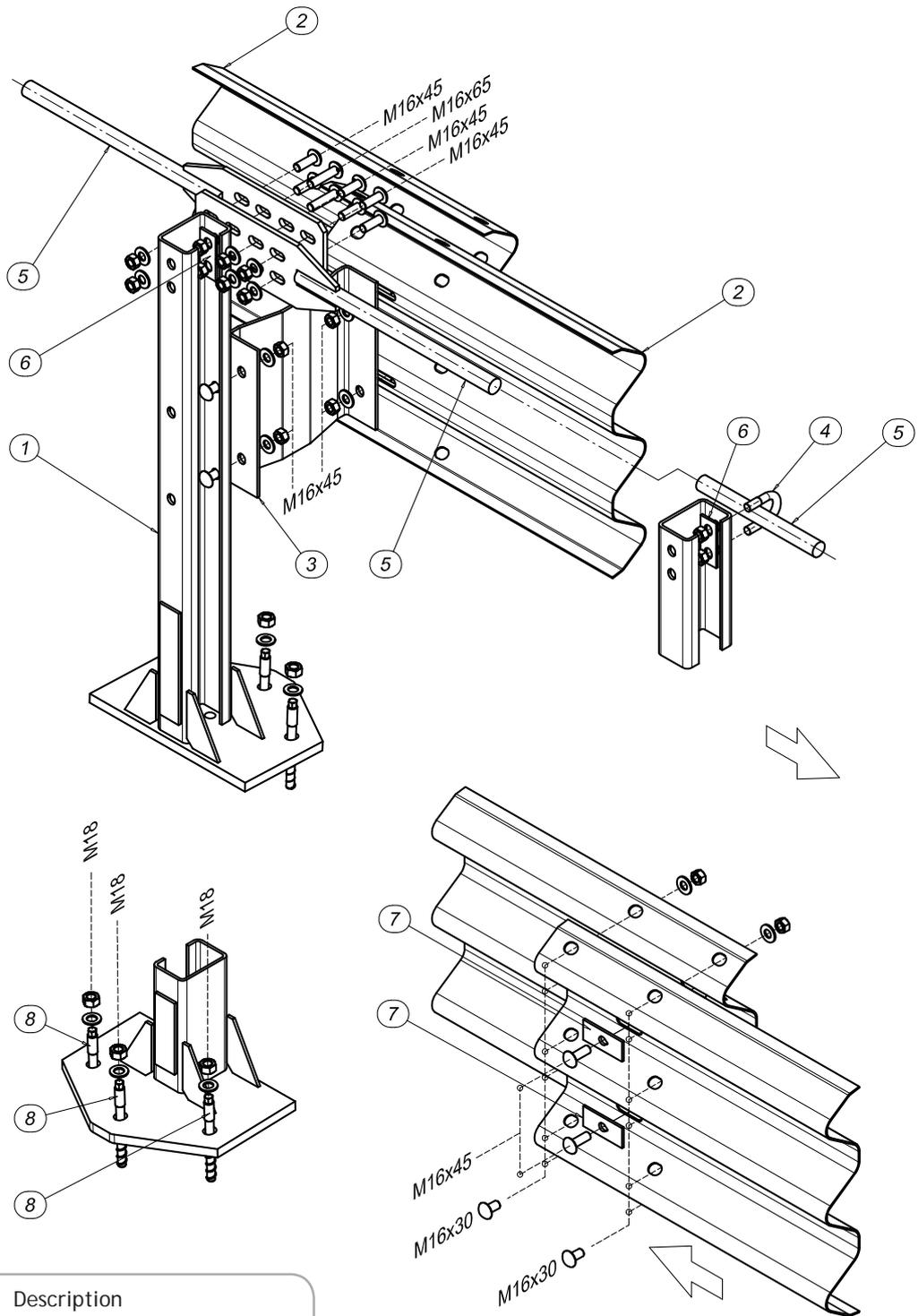
| Description | |
|-------------|--|
| 1 | C post 120X80X30 mm th. 5,9 mm H=1100 mm |
| 2 | "3n" Beam c/c 4500 mm th.2,5 mm |
| 3 | Spacers 310x80x5,9 mm L=330 mm |
| 4 | Clamp M16 |
| 5 | upper thr. ret. bars Ø32 L=9250 mm with welded plate |
| 6 | Plate 100x40x5 mm |
| 7 | Plate cover 100x45x5 mm |
| 8 | Anchor bolts M18 |

| Torque value | |
|--------------|-------|
| M16 x 30 | 90 Nm |
| M16 x 45 | 90 Nm |
| M16 x 65 | 90 Nm |
| M18 | 40 Nm |



4SAFE® BARRIERA DI SICUREZZA SINGOLA SU PONTE

H2-W4-A (3n32122)



| | Description |
|---|--|
| 1 | C post 120X80X30 mm th. 5,9 mm H=1100 mm |
| 2 | "3n" Beam c/c 4500 mm th.2,5 mm |
| 3 | Spacers 310x80x5,9 mm L=330 mm |
| 4 | Clamp M16 |
| 5 | upper thr. ret. bars Ø32 L=9250 mm with welded plate |
| 6 | Plate 100x40x5 mm |
| 7 | Plate cover 100x45x5 mm |
| 8 | Anchor bolts M18 |

| Torque value | |
|--------------|-------|
| M16 x 30 | 90 Nm |
| M16 x 45 | 90 Nm |
| M16 x 65 | 90 Nm |
| M18 | 40 Nm |

Revision 3 of 20/01/2011



INSTALLATION CRITERIA FOR 4Safe BARRIER H2-W4-A (3n32122)

Along with the general assembly instructions specified in the introduction chapter, please observe the following guidelines to install barrier 3n32122.

Preliminary operations

Where installation is to be carried out in traffic, all necessary road signs must be set up in order to direct traffic and protect workers from vehicles, in accordance with safety regulations.

The parts making up the road barrier can be unloaded from the transport vehicles by means of a crane fitted to the vehicle, or forklift truck, in accordance with current safety regulations.

Workers must be supplied with all required equipment, including safety shoes, gloves and goggles and - where necessary - helmets, safety harnesses and all else specifically needed for the site and required by current safety regulations.

Installation sequence

The assembly diagram provides instructions for correct barrier installation. Fully and completely follow these instructions.

Main steps:

1. Trace out a full line of reference on the ground, which will serve to align mounts, beams, and all other longitudinal parts.
2. Place the beams (2) along the traced line taking into account the direction of traffic.
3. Prepare the anchor rod holes 2,250 mm apart and install the M18 TSM B 16x190 mm (8) anchoring screws as follows:
 - Drill a hole with an electric drill and 16 mm bit to the recommended 130 mm depth
rimuovere con aria compressa la polvere dall'interno del foro.
 - Remove dirt from the hole using compressed air.
 - Brush the hole interior using a 18 mm diameter brush.
 - Remove dirt from the hole again using compressed air.
 - Starting from the bottom, fill the hole with the chemical anchoring component.
 - Insert the anchor rod in the hole and screw it in with an impact screwdriver, with minimum 40 Nm torque
 - when the screw reaches the bottom of the hole, a small part of the previously injected chemical anchoring component should seep out.
 - if the chemical component does not seep out, this means that an insufficient quantity was injected. In this case, unscrew the anchor rod and inject more of the chemical anchoring component.
 - screw in the anchor rod with the impact screwdriver with minimum 40 Nm torque.
4. The uprights (1) are vertically lifted and fastened to the base at the anchoring rods, screwing the lock nut onto the anchoring rod.
5. Apply the upper barrier (5) on the upright using the clamps (4). At the joint between the two subsequent barrier elements, connect the plates between them using 8 bolts: 6 M16x45 mm bolts and 2 M16x65 mm bolts, which are also used to connect the plates to the corresponding upright.
6. Assemble the spacers (3) to the uprights using the M16x45 mm bolts;
7. Assemble the beams (2) that have been laid on the ground, attaching them to the spacers (3) and themselves, by means of the bolts supplied and the set plates.
8. Use the calibrated pneumatic screwdrivers to fasten all nuts and bolts into place, checking levels and alignments.
9. Installation must always take place under the surveillance of a specialist technician, and in full compliance with the final drawing and current safety regulations.



INSTALLATION CRITERIA FOR 4Safe BARRIER H2-W4-A (3n32122)

Inspection of installation conformity

The technician responsible for the installation shall, at the very least, control conformity of the following, prior to beginning assembly, during work and upon conclusion, by using all measurement instruments necessary and in his possession:

1. Full compliance of the installation with the final drawings of reference.
2. Post spacing and height of upper beam and current edge in accordance with that specified on the final drawings of the barrier, dilation joints and ends.
3. Length and alignment of the installation on the basis of the final drawings and the road layout and altimetry.
4. Final coupling bolt torque according to that set in the assembly diagram.
5. Compliance with all applicable safety regulations.

Revision 3 of 20/01/2011

