

# THRIE-BEAM Traffic Barriers



## GENERAL TECHNICAL CHARACTERISTICS

This steel system is designed to improve highways safety and to reduce the seriousness of accidents.

Tecnovial thrie-beam traffic barriers work as a long continuous beam being supported by backings (posts) which are separated according to current specifications and laws, as well as the Highways Handbook.

Thrie-beam traffic barriers are manufactured in quality A37-24ES, A42-27ES or A36 steel and hot galvanized according to regulation ASTM A123. Bolts are made in quality ASTM 303 grade A steel and hot dipped galvanized according to regulation ASTM A153 class C. This product is certified by quality seal of CESMEC Iso Casco 5.

Tecnovial counts on a certified Integrated Management System according to ISO 9001:2008 (Quality), ISO 14001:2004 (Environment) and OHSAS 18001:2007 (Safety).

## Advantages

Thrie-beam traffic barriers have great resistance to heavy duty vehicles, such as double axle trucks, as well as light vehicles at high speed. The design of these structures is made in accordance to the Highways Handbook.

## Medium to High Containment Level

It is addressed to public transportation and long-distance buses that weighs less than 16 tons running at medium speed (in a range of 70 to 80 km/h).

## SYSTEM'S MAIN COMPONENTS

### Posts

Posts are anchored into the soil. Their main functions are to dissipate part of the energy impact as well as to keep the guard rail height.

### Divider

This piece connects the post and the guard rail to keep this last one height during the impact, separating the vehicle tires from the post and avoiding them to hook after the crash.

### Rail

It is a channel type metallic profile which is located parallel to the guard rail at 20 cm from the soil. Its main function is avoiding light vehicle tires to hook into the post during the impact.

### Guard Rail

This piece contains and redirects - along with the posts - the vehicle.

### Tensioner

This element gets in traction immediately after the impact and acts as a contention wire contributing to reduce the deformation width of the structure during the crash.

## COMPLEMENTARY COMPONENTS

- Longitudinal Terminal
- Simple Terminal
- Joint-free Terminal
- Reflective Elements

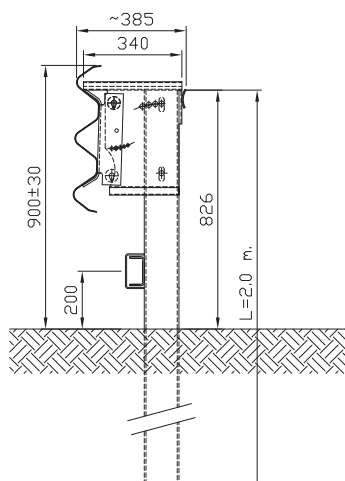


## ⊕ CLASSIFICATION OF THRIE-BEAM TRAFFIC BARRIERS ACCORDING TO THE HIGHWAYS HANDBOOK

Name	Guard Rail Type	Containment Level	Posts Type (mm)	Posts Distance (mm)	Divider	Maximum Estimated Work Width	Longitudinal Tensioner (mm)	Guard Rail Height (mm)	Bottom Rail (mm)
BML-3N-1.1	Thrie-Beam (L)	Medium to High	U 120 x 80 x 6	1.0	Simple Narrow	1.8	65x5/L=4.140	900	120x65x4
BML-3N-1.2				2.0		2.3			
BML-3N-1.3				4.0		2.6			
BMS-2N-1.1	Thrie -Beam (S)	Medium to High	U 120 x 80 x 6	1.0	Symmetric Narrow	1.0	-	900	120x65x4
BMS-3N-1.2				2.0		1.5			
BMS-3N-1.3				4.0					

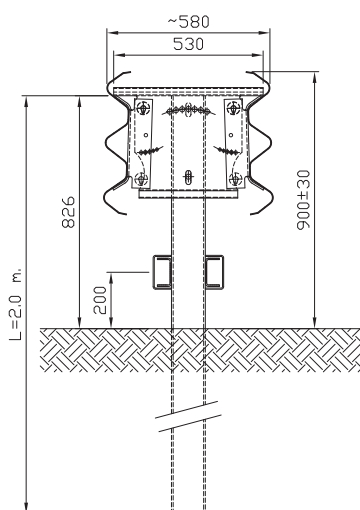
### ⊕ THRIE-BEAM METALLIC TRAFFIC BARRIER WITH SIMPLE NARROW DIVIDER

(BML – 3N – 1.1 / BML- 3N - 1.2/ BML- 3N – 1.3)

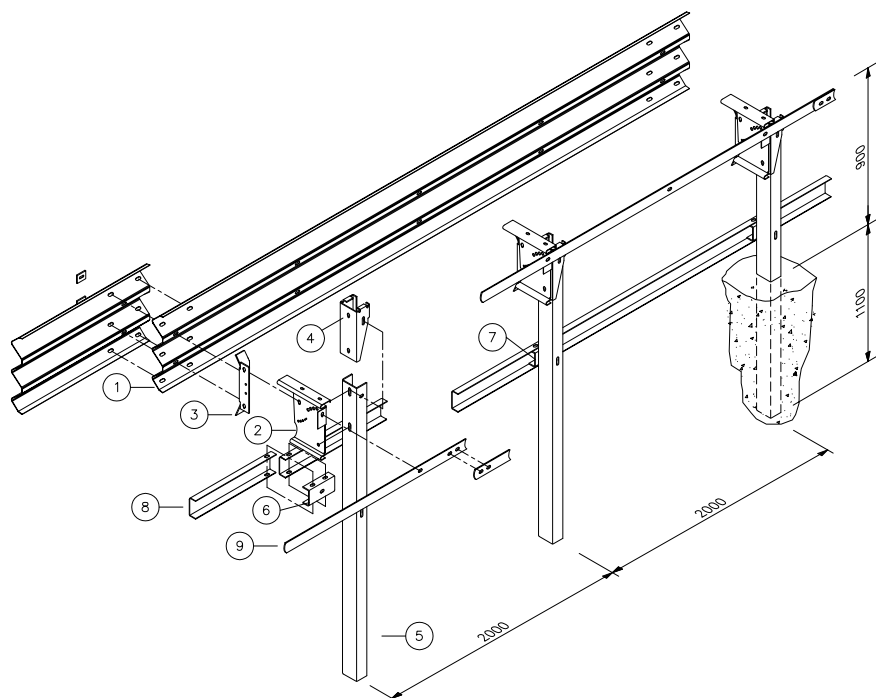


### ⊕ THRIE-BEAM METALLIC TRAFFIC BARRIER WITH SYMMETRIC NARROW DIVIDER

(BMS – 3N – 1.1 / BMS- 3N - 1.2/ BMS- 3N – 1.3)



### ⊕ THRIE-BEAM TRAFFIC BARRIER ISOMETRIC VIEW

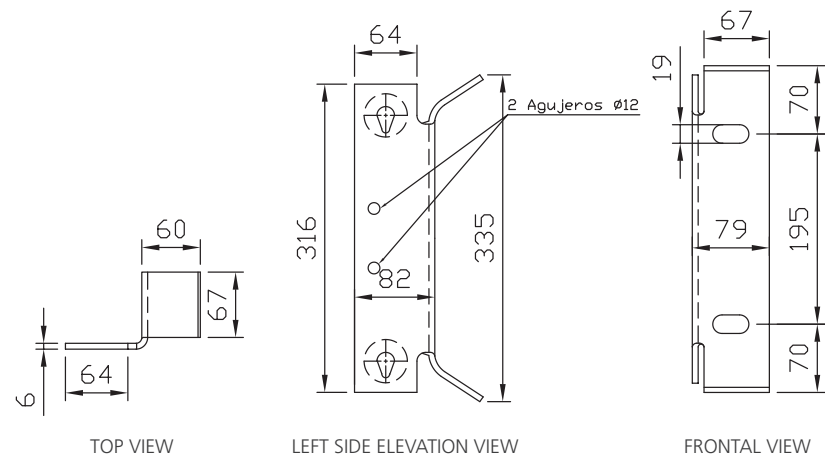


- 1 Straight thrie-beam protection
- 2 Simple narrow divider
- 3 Energy dissipater
- 4 Connecting and unhooking element
- 5 Post for thrie-beam protection
- 6 U 100 x 50 x 5 support (ends)
- 7 U 100 x 50 x 5 support (intermediate pieces)
- 8 Bottom Rail
- 9 Longitudinal tensioner
- 10 Reflective element

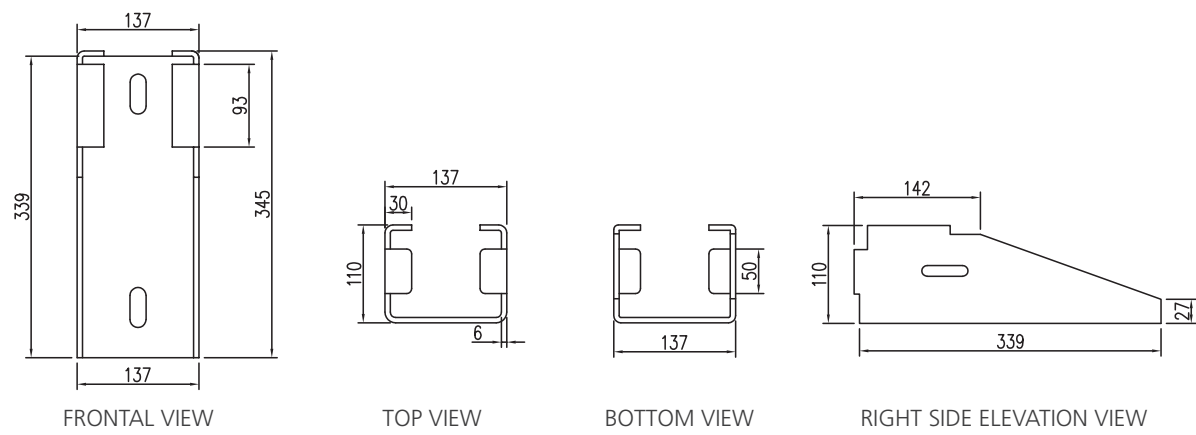




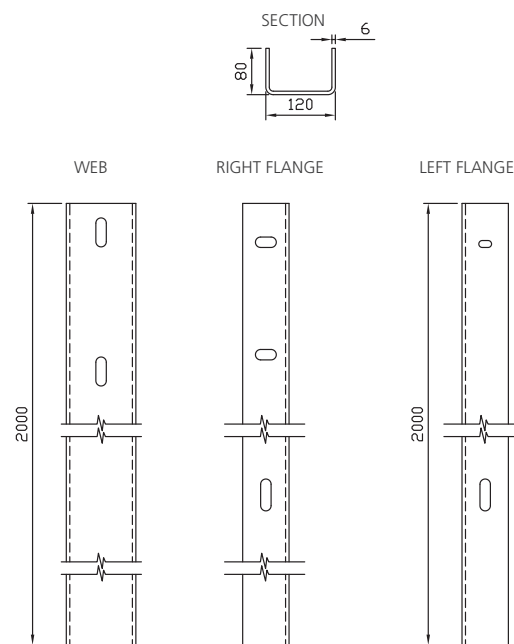
3- ENERGY DISSIPATER



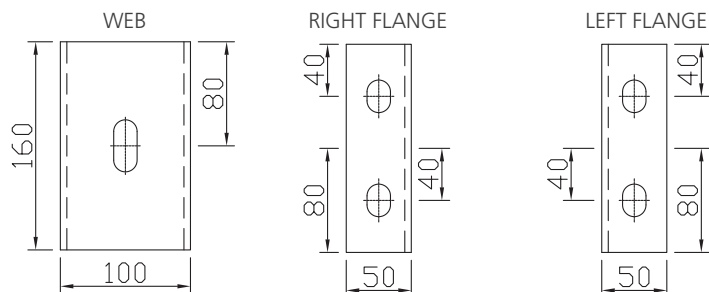
4- CONNECTING AND UNHOOKING ELEMENT



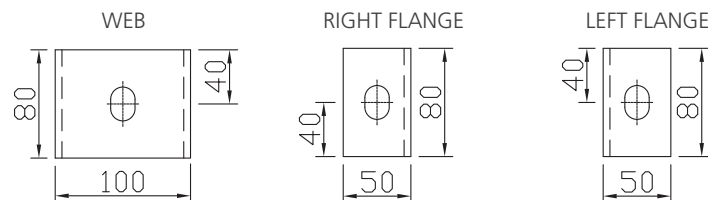
5- CHANNEL TYPE POST FOR THRIE-BEAM PROTECTION



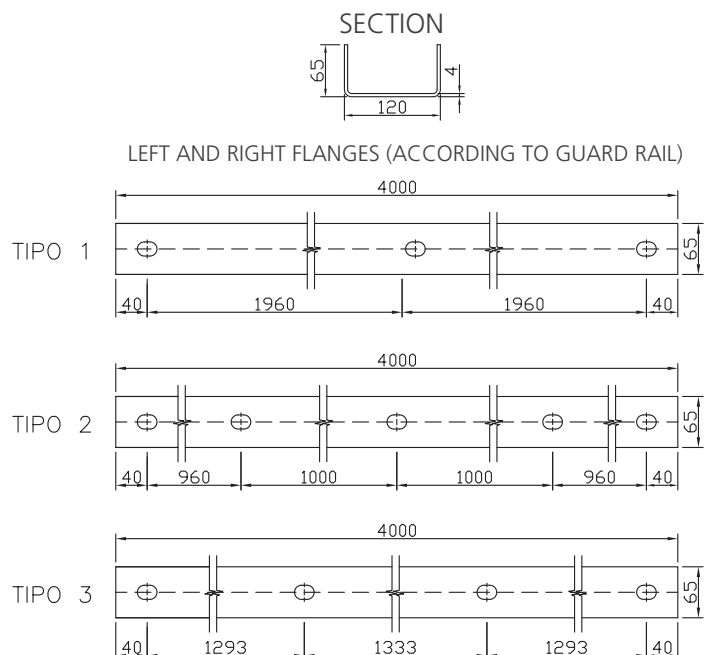
## 6- U 100 X 50 X 5 SUPPORT (ENDS)



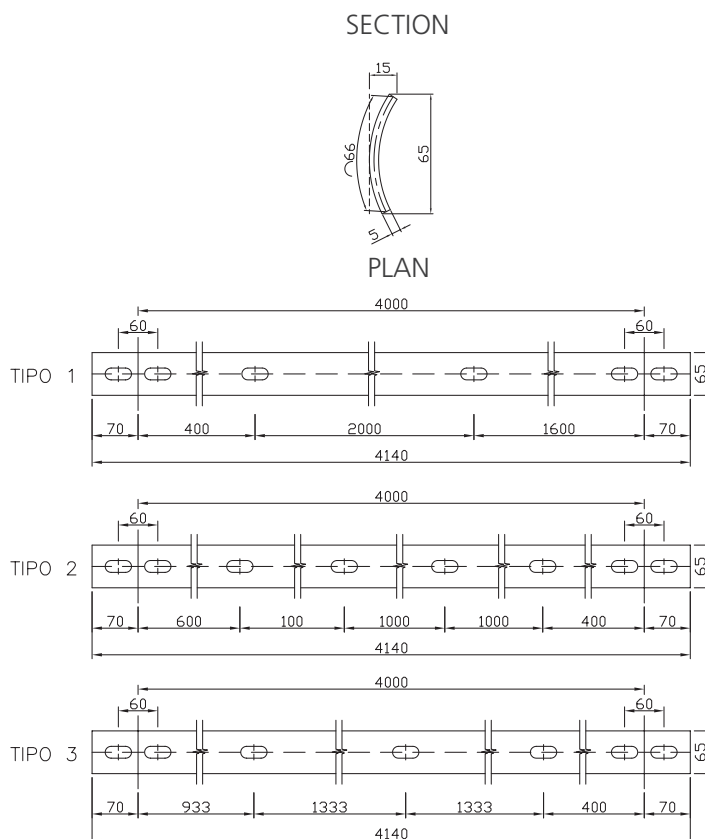
## 7- U 100 X 50 X 5 SUPPORT (INTERMEDIATE PIECES)



## 8- BOTTOM RAIL

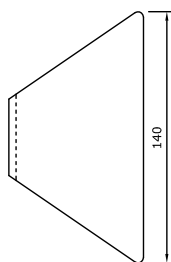


## 9- LONGITUDINAL TENSIONER

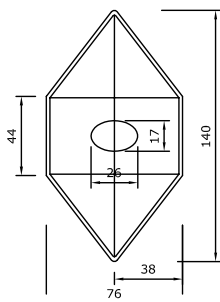


## 10- REFLECTIVE ELEMENT

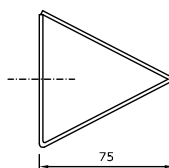
SIDE ELEVATION



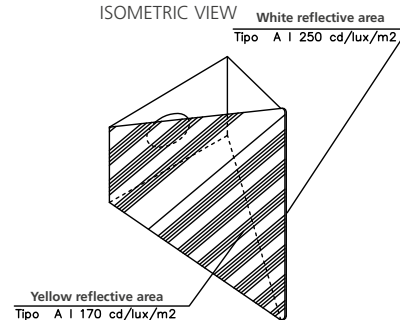
BACK ELEVATION



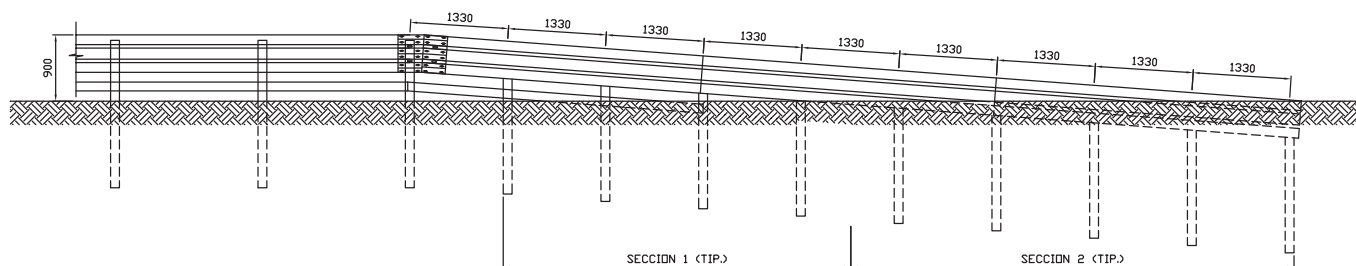
PLAN



ISOMETRIC VIEW

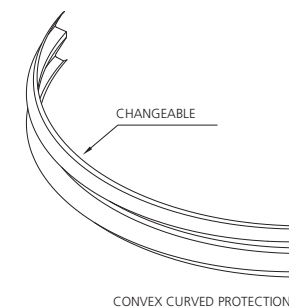
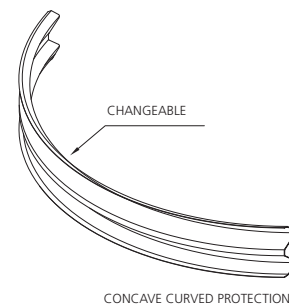
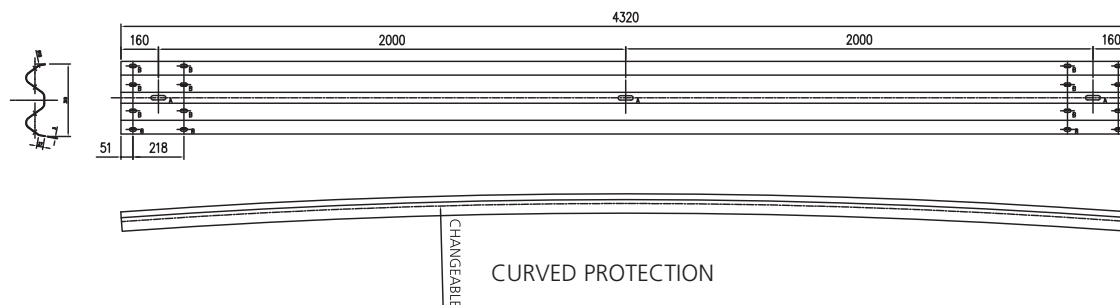


## TURNED DOWN END TERMINAL



Note: Please contact our technical department for further details and information of transition from w-beam to thrie-beam protection terminal, and of convex or concave curved protection.

## CONVEX AND CONCAVE CURVED PROTECTIONS



Note: Manufacturing radii of curved protections are: 10 m, 15 m, 20 m, 25 m, 30 m, 35 m, 40 m, 45 m and 50 m.