

W-BEAM Traffic Barriers



GENERAL TECHNICAL CHARACTERISTICS

The main purpose of steel w-beam traffic barriers is to improve highway safety and to reduce the severity of accidents.

Tecnovial w-beam traffic barriers work as a long continuous beam being supported by backings (posts) which are separated by distances according to current specifications and laws, as well as the Highways Handbook and Chilean Norm NCH 2123 of. 99. Because Tecnovial traffic barriers are made of hot dipped galvanized steel, they deliver high durability and strength.

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

Advantages

The use of traffic barriers prevents errant vehicles from penetrating the non traffic zone. Median traffic barriers prevent errant vehicles from entering the opposing carriageway of traffic and help to reduce head-on collisions.

Side traffic barriers help to reduce the seriousness of accidents preventing errant vehicles from entering dangerous zones where they may cause serious damage to properties and persons. They also help to redirect errant vehicles to the correct carriageway of traffic reducing the risk of damage for other vehicles (both following and parallel), as well as to minimize injury to vehicle occupants during a collision.

SYSTEM'S MAIN COMPONENTS

Post

It is a component that works with the divider and the guard rail which is installed by anchoring, being the support of the barrier. It has the property to become deformed and leave its position while the capacity of energy absorption of the structure is exhausted. Its function is to maintain the traffic barrier height.

Divider

Its purpose is to keep the posts separated from the vehicle tires during a collision. It allows maintaining the traffic barrier to a constant height and in contact with the vehicle while the posts are bending because of the impact strength.

Guard Rail

It is the element that makes contact with the vehicle to redirect it and absorb most of the kinetic energy from the impact.

Rail

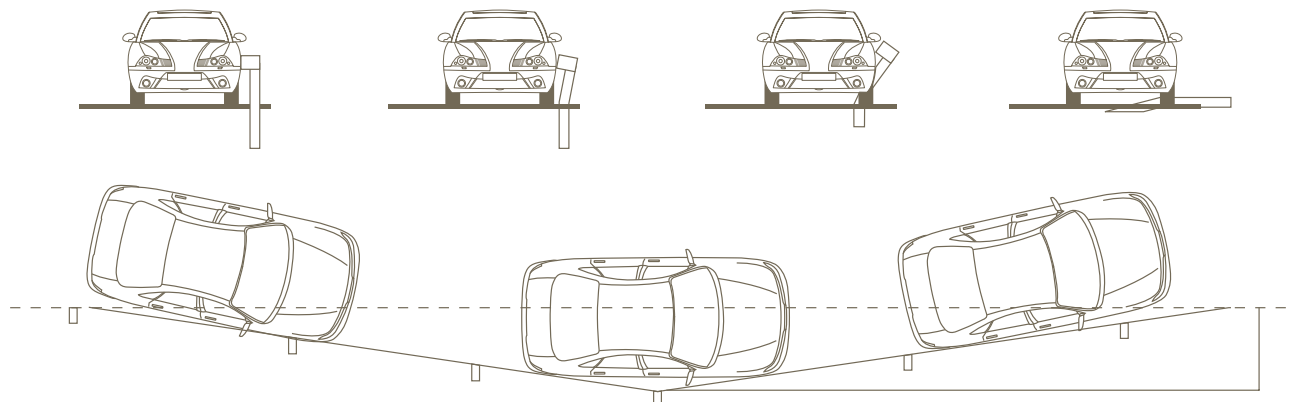
It is a metallic channel type profile which is located parallel to the guard rail at 20 cm from the soil for thrie-beam traffic barriers, in order to avoid the tires to get caught in the posts during the impact.

COMPLEMENTARY COMPONENTS

- Simple Terminal
- Turned Down End Terminal
- Bottom Rail
- Back Tensioner
- Transition Terminal
- Reflective Element



TRAFFIC BARRIER OPERATION



SEQUENCE OF DEFORMATION AND TRACTION OF POST + DIVIDER + GUARD RAIL STRUCTURE

Usages

W-beam traffic barriers main uses are highways, freeways and roads towards mining sites safety, being a fundamental element to reduce the impact of an errant vehicle.

Containment levels of w-beam traffic barriers are light and medium.

Light Containment Level

It is suitable for roads and streets in urban areas where mostly light vehicles are found.

Medium Containment Level

It is recommended for light vehicles at high speed (higher or equal to 80 km/h), and for buses and simple axle trucks that weighs less than 8 tons running at medium speed (in a range of 70 to 80 km/h).

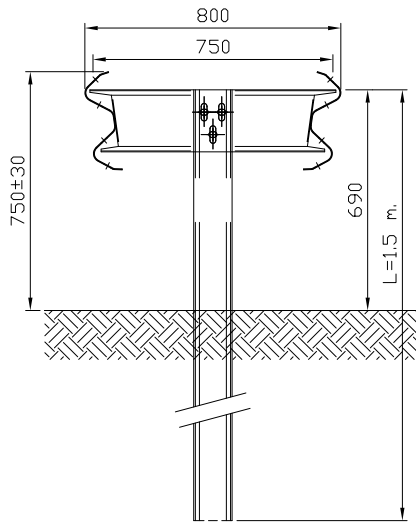
CLASIFICACIÓN DE BARRERAS DE CONTENCIÓN NO CERTIFICADAS

Name	Guard Rail Type	Containment Level	Posts Type (mm)	Posts Distance (mm)	Divider	Maximum Estimated Work Width	Longitudinal Tensor (mm)	Guard Rail Height (mm)	Bottom Rail (mm)
BML-2N-1.1	W-Beam (L)	Light	C 120 x 68 x 5 / 18	1.0	Simple	1.8	—	750	—
BML-2N-1.2				2.0		2.0			
BML-2N-1.3				4.0		2.5			
BML-2N-2.1	W-Beam (L)	Medium	C 120 x 68 x 5 / 18	1.0	Simple	1.5	65*5/L=4.140	790	—
BML-2N-2.2				2.0		1.8			
BMS-2N-1.1	W-Beam (S)	Light	C 120 x 68 x 5 / 18	1.0	Simétrico	1.0	—	750	—
BMS-2N-1.2				2.0		1.2			
BMS-2N-1.3				4.0		1.5			
BMS-2N-2.1	W-Beam (S)	Medium	C 120 x 68 x 5 / 18	1.0	Simétrico	1.2	—	900	120*65*4
BMS-2N-2.2				2.0		1.8			
BMS-2N-2.3				4.0		2.0			

Note: BML indicates Side Metallic Barrier; 2N indicates W-Beam; BMS indicates Symmetric Metallic Barrier.

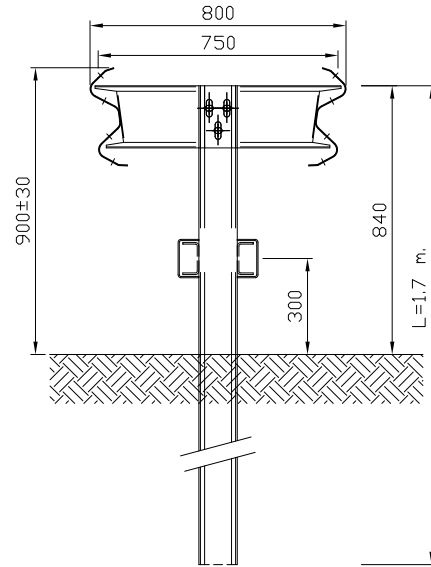
⊕ W-BEAM METALLIC TRAFFIC BARRIER WITH SYMMETRIC DIVIDER AND BOTTOM RAIL

(BMS – 2N – 2.1 / BMS – 2N – 2.2 / BMS – 2N – 2.3)



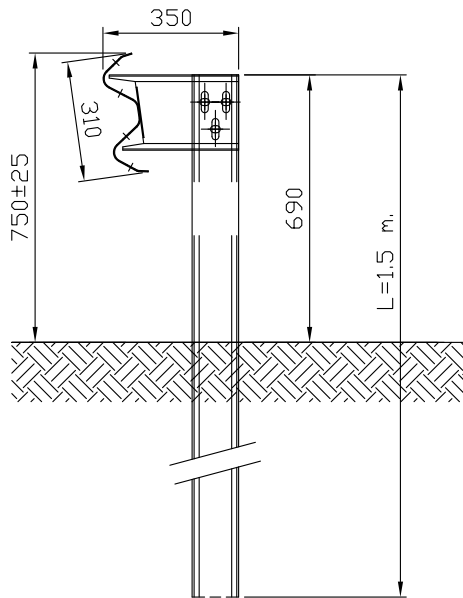
⊕ W-BEAM METALLIC TRAFFIC BARRIER WITH SYMMETRIC DIVIDER

(BMS – 2N – 1.1 / BMS – 2N – 1.2 / BMS – 2N – 1.3)



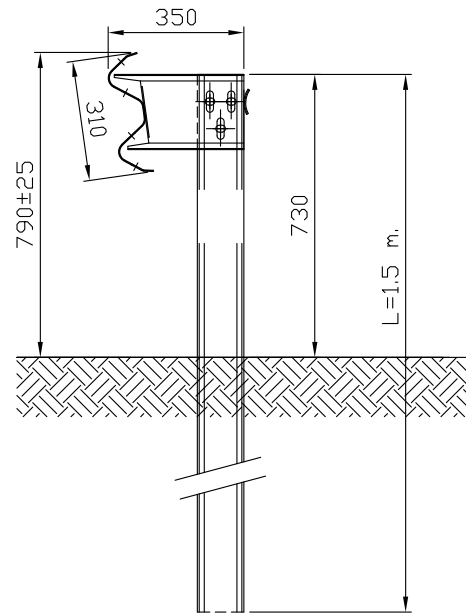
⊕ W-BEAM METALLIC TRAFFIC BARRIER WITH LONGITUDINAL TENSIONER

(BML – 2N – 2.1 / BML – 2N – 2.2)



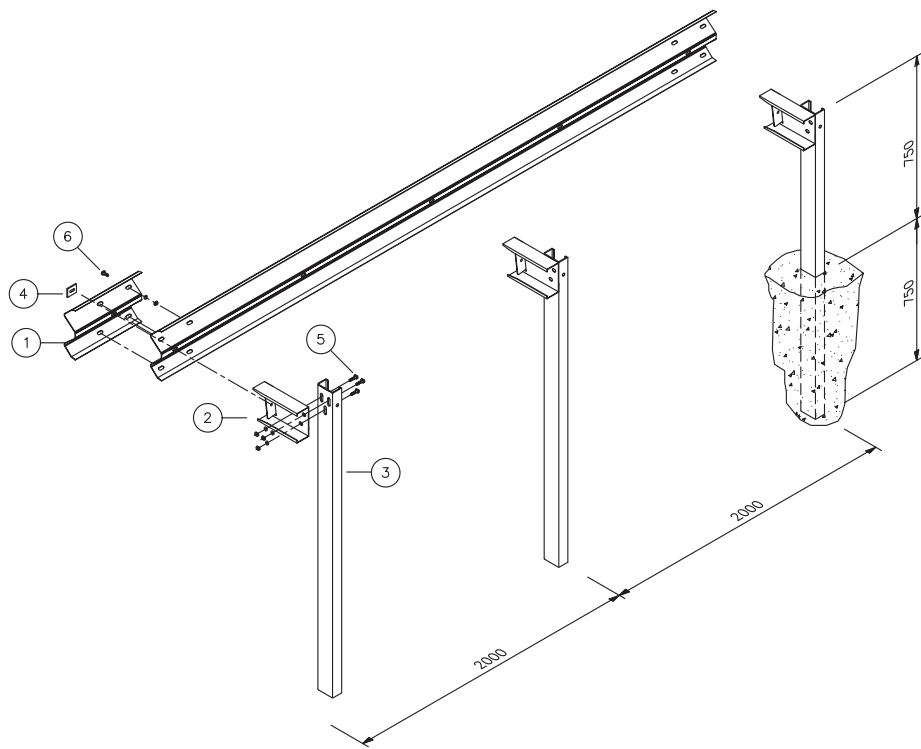
⊕ W-BEAM METALLIC TRAFFIC BARRIER WITH SIMPLE DIVIDER

(BML – 2N – 1.1 / BML – 2N – 1.2 / BML – 2N – 1.3)



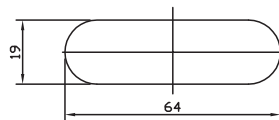


W-BEAM TRAFFIC BARRIER ISOMETRIC VIEW

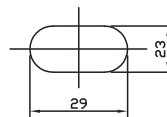


- 1 Straight w-beam protection
- 2 Short divider.
- 3 C post.
- 4 Longitudinal tensioner.
- 5 Rectangular washer.
- 6 Bottom rail.
- 7 Rail support.
- 8 Reflective element.

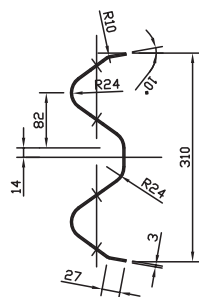
1- STRAIGHT W-BEAM PROTECTION



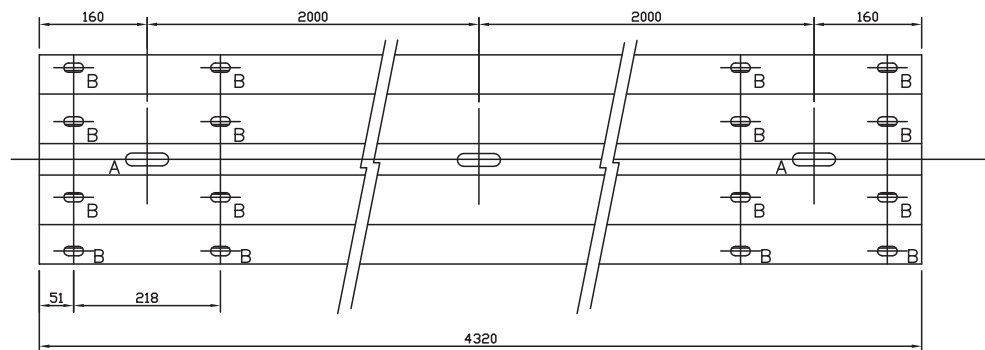
TYPE A HOLE DETAIL



TYPE B HOLE DETAIL

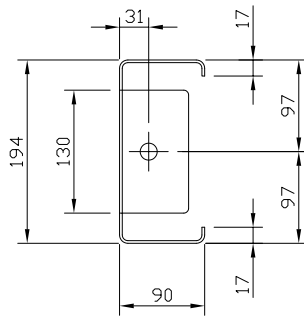


SIDE SECTION

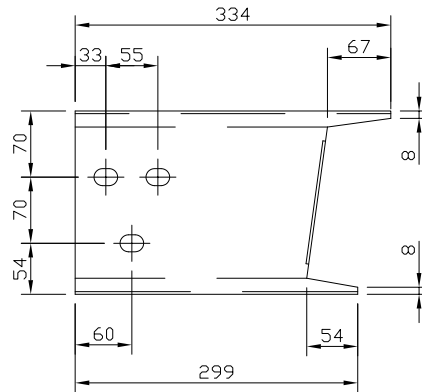


HOLES DETAILS W-BEAM
METALLIC GUARD RAIL

2- SHORT DIVIDER



ELEVACIÓN FRONTAL



ELEVACIÓN LATERAL

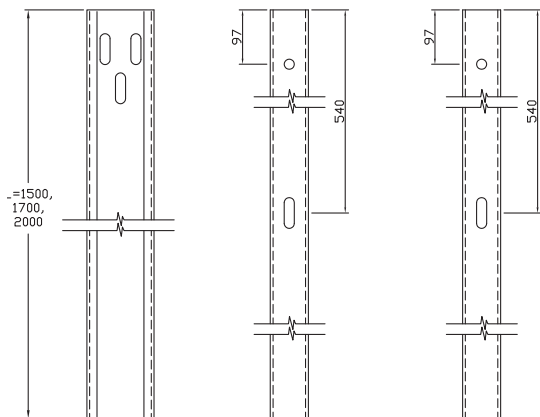
3- C POST



WEB

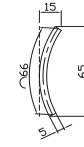
RIGHT FLANGE

LEFT FLANGE

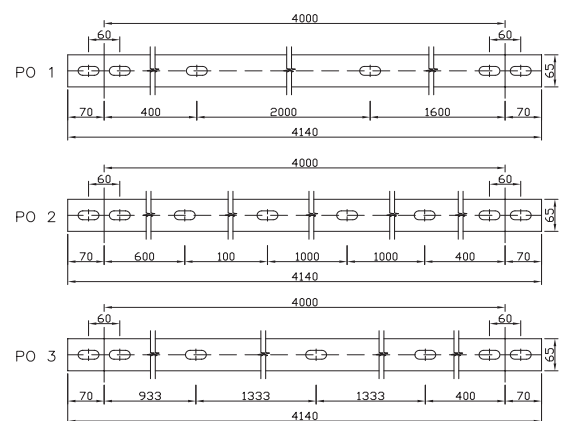


4- LONGITUDINAL TENSIONER

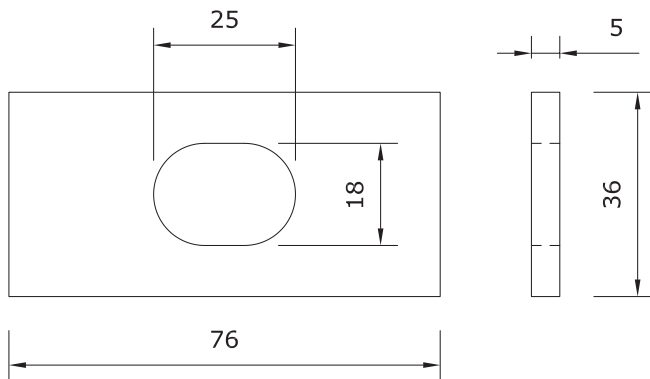
SECTION



PLAN



5- RECTANGULAR WASHER

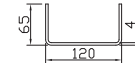


PLANTA

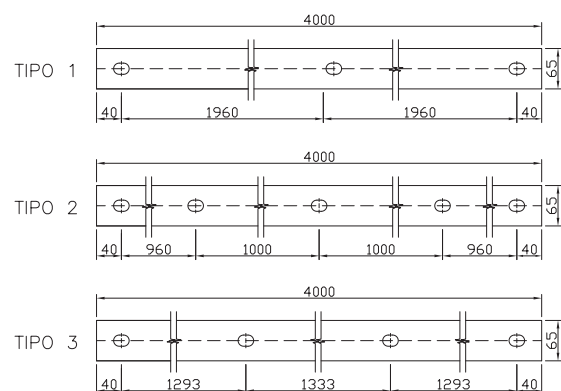
ELEVACION

6- BOTTOM RAIL

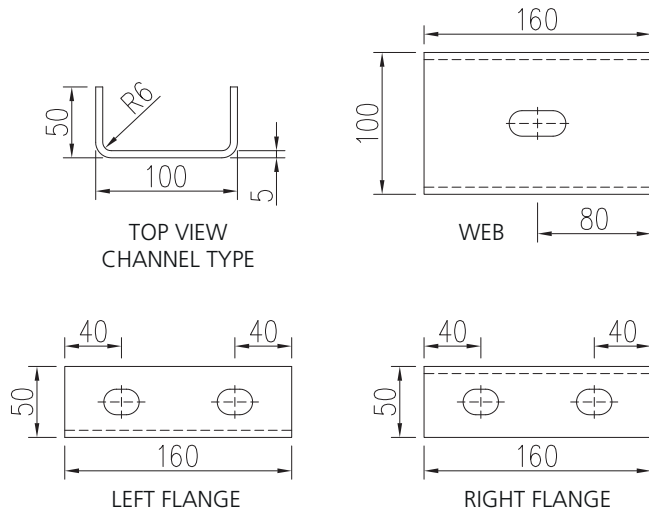
SECTION



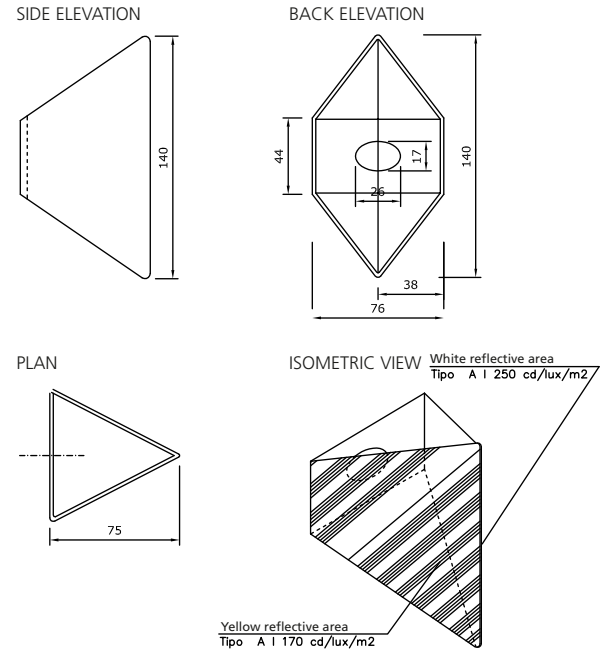
ALA IZQUIERDA Y DERECHA (SEGÚN BARANDA): LEFT AND RIGHT FLANGES (ACCORDING TO GUARD RAIL)



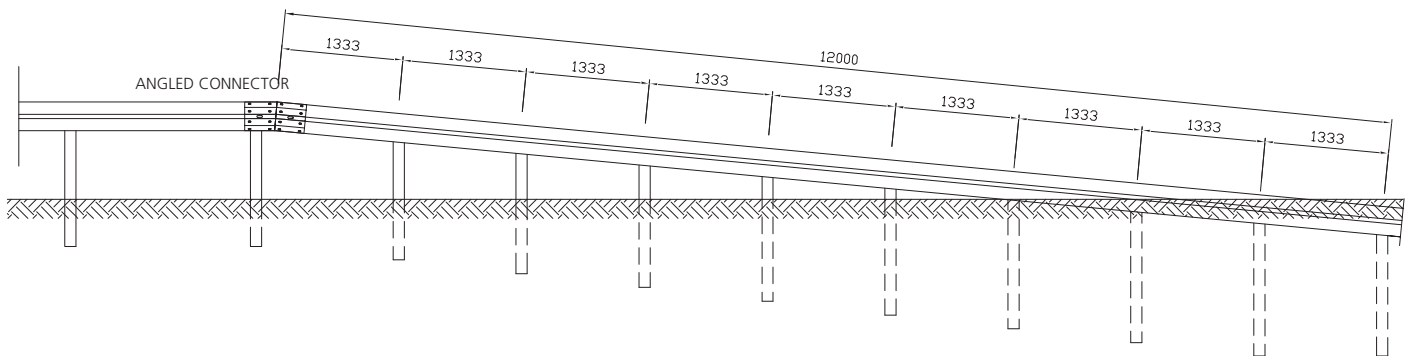
7- RAIL SUPPORT



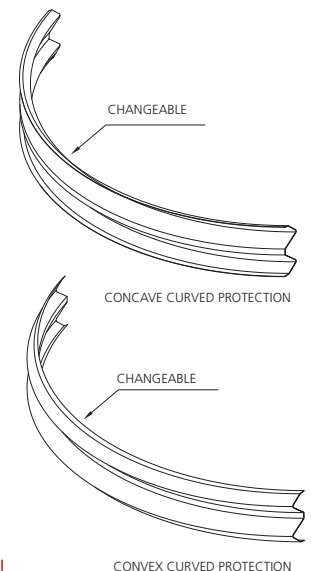
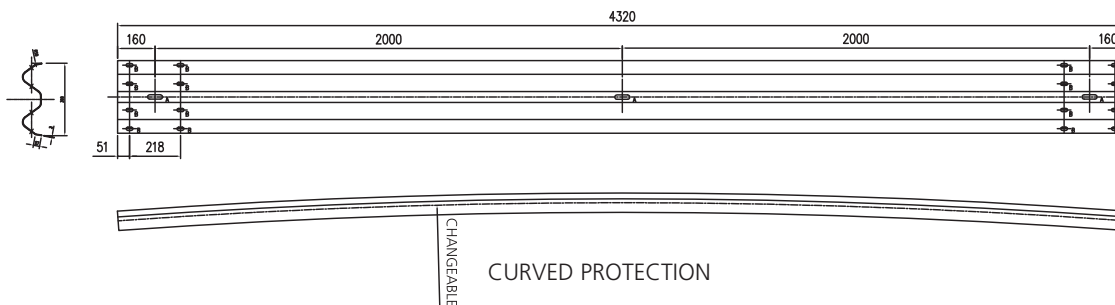
8- REFLECTIVE ELEMENT



TURNED DOWN END TERMINAL



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.