



Guardrail Product Catalogue

Shandong Hongda Industry Co., Ltd | Established 1998 | Jinan, Shandong Province, China

Shandong Hongda Industry Co., Ltd manufactures steel road safety barrier: W-beam and thrie-beam guardrail, open box beam, flex beam, curved radius sections, guardrail posts in C, Z, H and bolt-down forms, terminal end sections, spring steel buffers, and the bolts, nuts, caps and offset blocks that hold a barrier run together.

Standards worked to: AASHTO M180 for the Americas, ABNT for Brazil and JT/T 281-1995 for flex beam. Hot-dip galvanizing is carried out in our own workshop.

W-Beam Guardrail

W-Beam and Thrie-Beam Guardrail



W-beam guardrail is the most widely installed crash barrier on highways and roadways, built to keep an errant vehicle on the carriageway and away from roadside structures. The corrugated beam absorbs impact energy and redirects the vehicle at a controlled exit angle instead of stopping it dead. Hongda rolls the profile to AASHTO M180 from Tang Steel coil and hot-dip galvanizes it to 550 g/m², which is the specification most road authorities in the Americas write into their tenders. Standard sections run 4128 x 310 x 83 mm at 2.67 mm wall thickness, with other thicknesses rolled to order.

Specifications

Standard Size	4128 x 310 x 83 x 2.67 mm
Thickness	2.67 mm or customized
Steel Grade	Q235B (equivalent to S235JR) / Q345 (S355JR / ASTM A529M 1994)
Surface Treatment	Hot dip galvanized
Zinc Coating	550 g/m ² (80 microns)
Standard	AASHTO M180
Application	Highway, roadway

Thrie-Beam Guardrail

W-Beam and Thrie-Beam Guardrail



Thrie-beam guardrail features a three-corrugation profile, offering higher impact resistance than standard W-beam barriers. It is designed to absorb and redirect energy from errant vehicles, reducing damage to both the vehicle and its occupants. Hongda produces the barrier to AASHTO M180 from Tang Steel coil and hot-dip galvanizes it to 550 g/m², meeting the specification required by many road authorities in the Americas. Standard sections measure 4128 x 506 x 83 mm with a 3.0 mm wall thickness, with other thicknesses rolled to order.

Specifications

Standard Size	4128 x 506 x 83 x 3.0 mm
Thickness	3.0 mm or customized
Steel Grade	Q235B (equivalent to S235JR) / Q345 (S355JR / ASTM A529M 1994)
Surface Treatment	Hot dip galvanized
Zinc Coating	550 g/m ² (80 microns)
Standard	AASHTO M180
Application	Highway, dangerous area

Curved Radius Guardrail

Curved Radius Guardrail



Curved radius guardrail is a specialized barrier section designed to provide a smooth transition in road curves, with radii ranging from 1.5 meters to 50 meters. It is formed into convex or concave profiles using an automated bending machine to achieve precise curvature. The system is developed from a proven design for both new installations and upgrades to existing road safety infrastructure. It ensures consistent impact performance and alignment continuity at turning points where straight barrier sections would create abrupt transitions.

Specifications

Radius Range	1.5 m to 50 m
Forming Method	Automated bending machine
Surface Treatment	Hot dip galvanized
Application	Road curves, roundabouts, interchanges, retrofit installations

TBC: the published specification does not state Steel Grade, Zinc Coating for this product. Confirm before relying on it.

Open Box Beam Barrier

Open Box Beam



Open box beam barrier is a high-strength road safety barrier designed for long-term durability and impact resistance. Constructed from high-quality steel and hot-dip galvanized to 550 g/m², it is commonly used in highway and bridge applications across EU countries. The section is manufactured to meet design standards and can be customized for specific project requirements. Production has been ongoing since 2007, with approximately 100 containers shipped annually to the EU since 2010.

Specifications

Standard Size	200 x 150 x 149 x 4800 mm
Thickness	5.00 mm or customized
Steel Grade	Q235B (equivalent to S235JR) / Q345 (S355JR / ASTM A529M 1994)
Surface Treatment	Hot dip galvanized
Zinc Coating	550 g/m ² (80 microns)
Application	Highway, Bridge

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Flex Beam Guardrail

Flex Beam Guardrail



Flex beam guardrail is the standard crash barrier for highways and roadways in the Argentine and South American market, designed to redirect an errant vehicle and reduce damage to the vehicle and its occupants. Hongda produces the profile to JT/T 281-1995 from Tang Steel coil and hot-dip galvanizes it to 550 g/m², which is the coating weight specified in many regional tenders. Standard sections are 4128 x 310 x 83 mm at 3 mm wall thickness, with other thicknesses rolled to order.

Specifications

Standard Size	4128 x 310 x 83 x 3 mm
Thickness	2 to 4 mm or customized
Steel Grade	Q235B (equivalent to S235JR) / Q345 (S355JR / ASTM A529M 1994)
Surface Treatment	Hot dip galvanized
Zinc Coating	550 g/m ² (80 microns)
Standard	JT/T 281-1995
Application	Highway, roadway

Guardrail Posts

Guardrail Posts



Guardrail posts are structural supports for metal road safety barriers, determining the performance of the barrier system during a collision. Hongda produces steel posts using precision laser cutting and punching from Tang Steel coil, ensuring consistent fit and function. Posts are hot-dip galvanized to resist corrosion in outdoor environments. Available types include C, Z, H, and bolt-down posts, with C posts commonly used in Uruguay, Bolivia, and Chile. The posts are designed to be installed in soft soil or concrete pavement, depending on the application.

Specifications

Post Type	C, Z, H, Bolt Down
Material	Tang Steel coil
Surface Treatment	Hot dip galvanized
Application	Highway, roadway, median, shoulder
Installation Method	Driven into soil or bolted to concrete

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Guardrail Terminal Ends

Beams and Terminals



Guardrail terminal ends are installed at the start and end of each barrier run, and at every opening in the barrier line, to prevent a vehicle from being impaled on the sharp end of a beam. Hongda manufactures terminal ends using laser cutting and precision punching to ensure clean, accurate profiles that match the beam they connect to. The terminals are hot-dip galvanized to resist corrosion and are designed to redirect an impacting vehicle safely, reducing injury risk. They are produced to AASHTO M180, ABNT, and other international standards for use in the Americas, Brazil, EU, and Middle East.

Specifications

Surface Treatment	Hot dip galvanized
Production Method	Laser cutting and precision punching
Application	Terminal ends for W-beam, thrie-beam, and box beam guardrails

TBC: the published specification does not state Standard, Material, Zinc Coating for this product. Confirm before relying on it.

Spring Steel Buffers

Spring Steel Buffers



Spring steel buffers are impact-absorbing end terminals designed to reduce vehicle damage and structural failure at the ends of guardrail systems. The buffer uses a spring steel structure with a precision-bent and plasma-cut profile to absorb crash energy through controlled deformation. Made from high-strength spring steel and thermally treated for flexibility, it reduces anchor bolt pull-out forces during impact. The buffer is suitable for use at vehicle access points, loading docks, and industrial barriers where space is limited and impact energy must be dissipated safely.

Specifications

Material	High-strength spring steel
Treatment	Thermally treated for flexibility and strength
Dimensions	100 mm x 14 mm
Surface Treatment	Hot dip galvanized
Mounting	Bolted with springs and caps
Design	Retro-lavado column for energy absorption
Application	Guardrail end terminals, industrial barriers, loading docks