

# ENGINEERING STRONGER INFRASTRUCTURE FOR TOMORROW

(TRUSTED SINCE 2004)

Driven by engineering excellence and manufacturing innovation, Rostfrei Steels delivers sustainable steel solutions that enhance safety, performance, and long-term infrastructure resilience.

With over two decades of experience and a state-of-the-art manufacturing facility in Prithla, Palwal (Haryana), Rostfrei Steel specializes in the manufacturing of W-Beam & Thrie-Beam Crash Barriers, PEB Structures, Grain Silos, and Modular Liquid Storage Tanks (GFS, FBE, FBEC & ZnAl). Renowned for quality manufacturing, precision engineering, and dependable project execution, the company provides end-to-end solutions from design and manufacturing through to installation.



**HIGH SAFETY  
STANDARDS**



**STRONG &  
DURABLE**



**PRECISION  
ENGINEERED**



**TRUSTED BY  
INDUSTRY LEADERS**



## RSPL Key Products & Solutions

- Road Safety W-Beam & Thrie-Beam Crash Barriers for Highways, Railways & Infrastructure Projects
- Pre-Engineered Building (PEB) Solutions
- Glass Fused to Steel (GFS) Tanks
- Fusion Bond Epoxy (FBE) Tanks
- Zincolume Tanks
- Silos & Material Handling Solutions

We provide complete turnkey services including designing, manufacturing, supply, installation.

# Applications of W-Beam and Thrie-Beam Crash Barriers

W-Beam and Thrie-Beam crash barriers are widely used in transportation and infrastructure projects to improve road safety, control vehicle movement, and minimize the severity of accidents. These barriers are designed to absorb impact energy and safely redirect errant vehicles, thereby reducing the risk of serious injuries and property damage. Their major applications include:



## National Highways and State Highways:

Installed along medians, road edges, embankments, curves, and hazardous roadside sections to prevent vehicles from leaving the carriageway and to reduce the severity of collisions.



## Expressways and High-Speed Corridors:

Used on expressways and access-controlled highways to separate opposing traffic streams, protect roadside hazards, and provide enhanced vehicle containment at high operating speeds.



## Bridges, Flyovers, and Elevated Structures:

W-Beam barriers are commonly used on bridge approaches and flyovers, while Thrie-Beam barriers are preferred on bridge decks and high-risk elevated sections due to their higher strength and containment capacity, especially for heavy vehicles.



## Mountain and Ghat Roads:

Installed on hill roads, sharp curves, steep slopes, and valley-side edges to prevent vehicles from running off the roadway and falling into hazardous terrain.



## Urban Roads and Smart City Infrastructure:

Used near intersections, service roads, elevated corridors, bus corridors, and pedestrian-sensitive areas to improve roadside safety and vehicle guidance.



### **Road Medians and Central Verges:**

Installed in median sections to prevent cross-over accidents and reduce the possibility of head-on collisions between opposing traffic streams.

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### **Industrial and Heavy Construction Zones:**

Provided around construction sites, industrial corridors, mining roads, and infrastructure projects to protect workers, equipment, and moving vehicles from accidental impacts.

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### **Airport Infrastructure:**

Used along airport approach roads, internal circulation roads, parking zones, cargo terminals, and restricted operational areas to enhance traffic safety and protect critical infrastructure.

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### **Railway Infrastructure:**

Installed near railway crossings, station approach roads, overbridges, underpasses, and rail corridor interfaces to guide vehicles safely and minimize collision risks.

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### **Educational Institutions and Public Facilities:**

Applied within university campuses, schools, hospitals, research institutions, and large public facilities to improve pedestrian safety, regulate vehicle movement, and protect roadside assets.

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### **Toll Plazas, Interchanges, and Ramps:**

Used at toll plazas, entry/exit ramps, cloverleaf interchanges, and channelizing islands to safely direct traffic and shield fixed roadside structures.

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### **Hazardous Roadside Locations:**

Installed near retaining walls, culverts, drainage structures, utility poles, sign gantries, steep embankments, water bodies, and other roadside obstacles where vehicle impacts may result in severe consequences.

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# Key Technical Specifications for W-Beam & Thrie-Beam Crash Barriers

## Beam Profile



Material  
Cold-rolled steel,  
Grade Fe 410 / 510



Thickness  
3 mm  
(customization)



Hot-dip galvanization  
Minimum 550 g/m<sup>2</sup>  
(as per IS:1364)

## Beam Dimensions

| Feature          | W-Beam         | Thrie-Beam     |
|------------------|----------------|----------------|
| Length           | 4318 mm        | 4318 mm        |
| Width            | 312 mm         | 510 mm         |
| Height           | 83 mm          | 83 mm          |
| Effective Length | 4.0 m per beam | 4.0 m per beam |



### Posts & Spacers

- Post: **C-type**, 150x75x5, length 1800mm/2100mm as per requirement.
- Spacing (standard): 2 m centers
- Spacer; C-type, 150x75x5mm, length- 330 or 546mm.
- As per IRC:119-2015



### Hardware

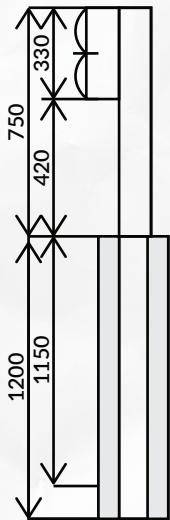
- Bolts: 16 mm × 40 mm **Button Head bolts**
- Nuts & Washers: Hot-dip galvanized



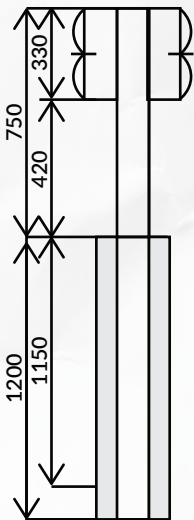
### Performance & Standards

- Conforms to: **MORTH, IRC:119-2015, AASHTO M180, EN 1317**
- Raw Material Grade- Fe360/Fe410/Fe510 or Equivalent.
- Designed for: Energy absorption and safe redirection of vehicles

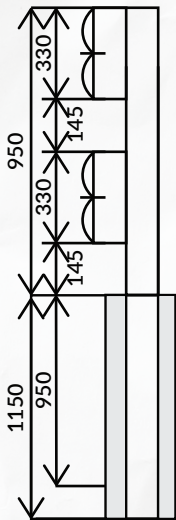
# Crash Barriers Graph



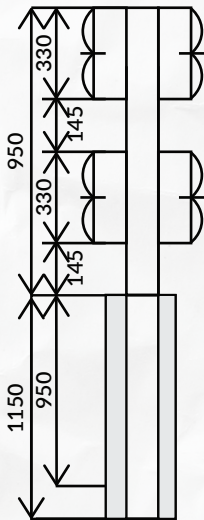
Single Side  
Single  
Guardrail



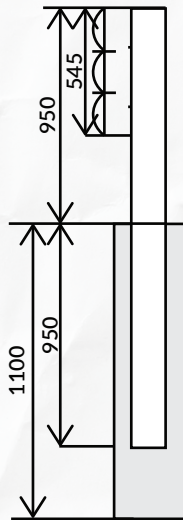
Double Side  
Single  
Guardrail



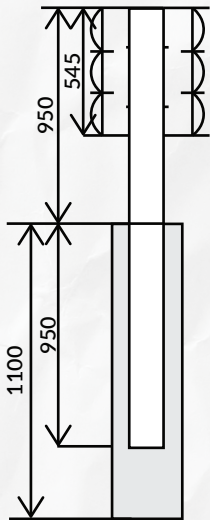
Single Side  
Double  
Guardrail



Double Side  
Double  
Guardrail



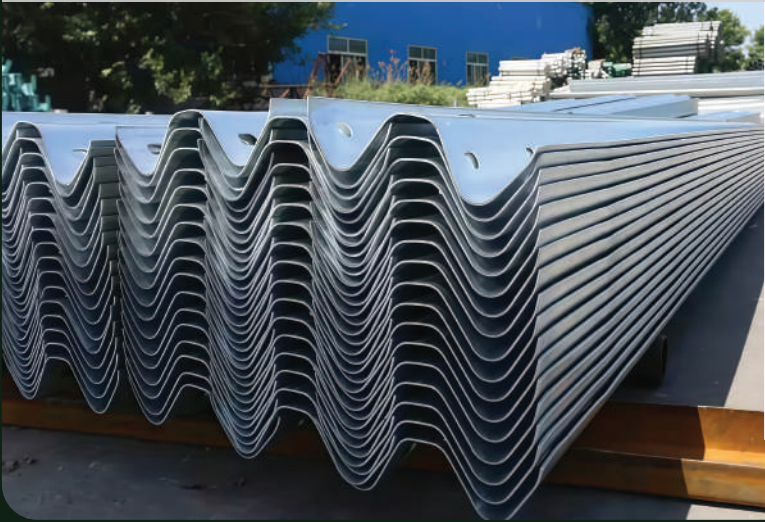
Single Side  
Thrie Beam  
Guardrail



Double Side  
Thrie Beam  
Guardrail



W / Thrie Beam Crash Barrier for Highways and Railways



# Our Customers/Clients

## MAJOR CLIENTS

|                                                |                       |
|------------------------------------------------|-----------------------|
| Jal Jeevan Mission                             | Unilever              |
| Ministry of Jal Shakti                         | The Coca-Cola Company |
| Indian Railways                                | PepsiCo               |
| Municipal Corporations (across major cities)   | Adani Group           |
| Smart City Projects under Smart Cities Mission | Reliance Industries   |
| MNGL                                           | Tata Group            |
| IOCL                                           | Amazon                |
| GAIL                                           | Flipkart              |
| NTPC                                           | Larsen & Toubro       |
| PUBLIC HEALTH ENGG                             | Asian Paints          |
| Torrent Power                                  | Aditya Birla Group    |
| PGCIL (Power Grid)                             | Kalpataru Projects    |

### Infrastructure & Capacity

- **Head Office:** Astralis Supernova, Sector-94, Noida, Uttar Pradesh
- **Manufacturing Facility:** 15 acres (653,400 sq ft)
- Advanced automated machinery ensures precision with minimal error ( $\pm 1\%$ )

### Certifications

- MSME Certified
- ISO 9001:2015 • ISO 14001:2015
- CE Certified Plant
- FM 4020 Approval (EQ Zone 250/500 years) for GFS Tanks
- NSF Certification for GFS & FBE Tanks for potable (drinking) water applications
- Patent granted for FBEC Tank technology

A trusted partner committed to delivering dependable infrastructure solutions. We would be honored to be associated with your esteemed organization for your projects.

For more information, please find contact details below



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**BUILT FOR SAFETY. ENGINEERED FOR TOMORROW.**



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