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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 31439.2-2025

Replacing GB/T 31439.2-2015

**Corrugated sheet steel beams for road guardrail - Part 2:
Thrie-beam guardrail**

波形梁钢护栏 第2部分：三波形梁钢护栏

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents". Drafting.

This document is Part 2 of GB/T 31439 "Wave-beam steel guardrails". GB/T 31439 has already published the following parts.

- Part 1: Two-wave beam steel guardrail;
- Part 2: Three-wave beam steel guardrail.

This document supersedes GB/T 31439.2-2015 "Wave-beam steel guardrails - Part 2: Three-wave-beam steel guardrails". (The last part, "and GB/T 31439.2-", appears to be a standard version of GB/T 31439.2 and is not directly related to the document's standard.) Compared to 2015, aside from structural adjustments and editorial changes, the main technical changes are as follows.

- a) Product categories have been removed (see 3.1.1 in the 2015 version);
- b) The product composition has been changed (see 4.2, 3.2 in the 2015 version);
- c) The applications, models, and specifications of the three-wave beam slab have been changed (see 4.3.1, 3.3.1 in the 2015 version);
- d) The application, specifications, dimensions, and permissible tolerances of the three-wave beam backplate have been changed (see 4.3.2, 5.2.2, and 3.3.2 and 4.2.2 in the 2015 edition);

- e) The purpose, specifications, dimensions, and permissible tolerances of the transition plate have been changed (see 4.3.3, 5.2.3, and 3.3.3 and 4.2.3 in the 2015 edition);
- f) The purpose, specifications, dimensions, and permissible tolerances of the steel pipe column anti-blocking blocks have been changed (see 4.3.5, 5.2.5.1, 5.2.5.2, 2015 edition). 3.3.5, 4.2.5.1, 4.2.5.2);
- g) The application, specifications, dimensions, and permissible tolerances of the BFIV type anti-blocking block have been added (see 4.3.5, 5.2.5.3);
- h) The requirements for transverse diaphragms and related technical specifications have been removed (see 2015 editions 3.3.6 and 4.2.6);
- i) The uses, specifications, dimensions, and permissible tolerances of the brackets have been added (see 4.3.6 and 5.2.6);
- j) The applications, specifications, nominal dimensions, and permissible deviations of splicing bolt assemblies and connecting bolt assemblies have been changed (see 4.3.8, 4.3.9).

Versions 5.2.8.1, 5.2.8.3, 5.2.9.1, and 5.2.9.3 (Versions 3.3.8, 3.3.9, 4.2.8.1, and 4.2.9.1 in the 2015 edition);

- k) The appearance description and burr removal requirements have been changed (see 5.1.1.1, 5.1.2, and 4.1.1, 4.1.2 in the 2015 version);
- l) A requirement has been added that the three-wave beams, reinforced crossbeams, and columns should not be welded to extend their length (see 5.1.4);
- m) The number of connecting bolt holes in the middle of the three-wave beam plate should be based on the requirements for the spacing of the steel pipe columns, the unfolded dimensions, and the allowable deviations.

Requirements (see 5.2.1.1~5.2.1.3);

- n) The dimensional requirements for steel pipe columns, square tube columns, and H-beam columns have been changed (see 5.2.4.2, 5.2.4.6, and 5.2.4.10, 2015 edition). 4.2.4.2, 4.2.4.6 and 4.2.4.10);
- o) The requirements for end base thickness and end bending angle have been changed (see 5.2.7.1, 5.2.7.2, and 4.2.7.1 in the 2015 version). 4.2.7.2);
- p) The requirements for splicing bolt connections and connecting bolt connections under anti-theft fastening technology have been deleted (see 4.2.8.3 and 2015 version). 4.2.9.3);
- q) Added allowable tolerances and end treatment requirements for reinforced crossbeams (see 5.2.10.1, 5.2.10.3);
- r) The material requirements for components such as the three-wave beam plate,

three-wave beam back plate, transition plate, column, anti-blocking block or bracket, and end cap have been changed (see...).

5.3.1 (4.3.1 in the 2015 version);

s) The processing requirements for the columns and anti-blocking blocks have been changed (see 5.4.2, 4.4.2 in the 2015 version);

t) Added processing requirements for the three-wave beam plate installed on curves with small radii (see 5.4.5);

u) The requirements for corrosion protection have been changed (see 5.5, 4.1.3 and 4.5 in the 2015 edition).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Transportation Engineering Facilities (Highway) (SAC/TC223).

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Introduction

Corrugated beam steel guardrails are installed on the outer side of the driving lane or in the central divider. In the event of a vehicle collision, they absorb the impact through

deformation or vehicle elevation.

A strip-shaped energy-absorbing structure that absorbs energy to reduce the degree of injury to occupants.

GB/T 31439 "Corrugated Beam Steel Guardrail" is a fundamental and general standard guiding the production and inspection of corrugated beam steel guardrails. It consists of two parts. constitute.

- Part 1: Two-Wave Beam Steel Guardrail. The purpose is to establish the naming, composition, model and specifications, and technical requirements of two-wave beam steel guardrails.

Requirements, test methods, inspection rules, and marking, packaging, transportation and storage requirements.

- Part 2: Three-Wave Beam Steel Guardrail. The purpose is to establish the naming, composition, model and specifications, and technical requirements of three-wave beam steel guardrails.

Requirements, test methods, inspection rules, and marking, packaging, transportation and storage requirements.

Corrugated beam steel guardrail Part 2: Three-wave beam steel guardrail

1 Scope

This document specifies the naming, composition, model, specifications, technical requirements, test methods, inspection rules, marking, and packaging of three-wave beam steel guardrails.

Requirements for loading, transportation and storage.

This document applies to the production and inspection of all components of a three-wave beam steel guardrail.

2 Normative references

GB/T 699

GB/T 700-2006

GB/T 3077

GB/T 3103.1-2002

GB/T 3103.3-2020

GB/T 6728