

ICS 91.080.40
CCS P 32

JG

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

JG 160-2004

Replacing JG/T 160-2004; JG/T 367-2012

**Mechanical anchors for use in concrete
(English Translation)**

Issued on: May 27, 2017

Implemented on: December 1, 2017

**Issued by: Ministry of Housing and Urban-Rural Development of the
People's Republic of China**

Table of Contents

Preface
1 Scope
2 Normative references
3 Terms, definitions and symbols
4 Classifications and Tags
5 General requirements
6 Request
7 Test Method
8 Inspection Rules
9 Signs and Product Manuals
10 Packaging, Transport, and Storage
Appendix A (Informative Appendix) Examples of Anchor Types and Anchor Failure Forms
Appendix B (Normative Appendix) Drills and Drilling
Appendix C (Normative) Fatigue Performance Test
Appendix D (Informative) Boundary Parameters Test
Appendix E (Normative Appendix) Test Methods and Requirements for Installation Sensitivity of Expansion Anchors and Bottom Anchors
Appendix F (Informative Appendix) Special Tests and Requirements for Self-Driving Anchors
Appendix G (Normative) Concrete Specimen
Appendix H (Normative) Test Equipment
Appendix I (Normative) Seismic Performance Special Test
Appendix J (Normative) Radial Force Factor Test
Appendix K (Normative) Test Data Processing

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces JG 160-2004 "Inflation-type, hole-expanded building bolts for concrete" and JG/T 367-2012 "cutting for construction projects."

(Expanded) bottom mechanical anchor bolts and back cut (expanded) bottom drill bits. Compared with JG 160-2004 and JG/T 367-2012, with the exception of editorial modifications the technical changes are as follows.

- Modified terms and symbols;
- Modify the product classification, increase the classification of anchor bolts according to applicable conditions;
- Modified anti-corrosion requirements;
- Complete the requirements of anchorage performance, different anchorage performance requirements for different types of anchor bolts, see Table 2; increased limit installation Torque performance requirements, see Table 2; Remove the long-term load performance requirements; modify the seismic performance requirements, see Table 3;
- Modify the concrete cone failure capacity factor, see Table 2; increased by the performance index classification requirements, see 6.1;
- Increased limit installation torque test method, see 7.1.3.3; Removed long-term load test method; Modified shock resistance for specific test methods, see Appendix I;
- Modify the factory inspection and type inspection items and rules.

This standard is proposed by the Institute of Standardization of Housing and Urban-Rural Development Standards.

This standard is under the jurisdiction of the Standardization Technical Committee for Building Products and Components of the Ministry of Housing and Urban-Rural Development.

1 Scope

This standard specifies the classification and marking of mechanical anchor bolts based on concrete, requirements, test methods, inspection rules, markings, and product descriptions.

Books, packaging, transportation and storage.

This standard applies to metal anchor bolts anchored on cracked or non-cracked concrete with a compressive strength of 25 MPa to 60 MPa.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB 175 General Purpose Portland Cement GB/T 193 ordinary thread diameter and pitch series GB/T 196 common thread basic size GB/T 197 Common thread tolerance GB/T 699 high quality carbon structural steel GB/T 700 carbon structural steel GB/T 1220 stainless steel rod GB/T 3077 alloy structural steel GB/T 3098.1 Mechanical properties of fasteners Bolts, screws and studs GB/T 3098.2 Mechanical properties of fasteners GB/T 3098.6

Mechanical properties of fasteners Stainless steel bolts, screws and studs GB/T 3098.15
Mechanical properties of fasteners Stainless steel nuts GB/T 4237 stainless steel hot rolled
steel plate and strip GB/T 5267.1 Fastener Plating GB/T 5267.3 fasteners hot dip
galvanized layer GB/T 6335.1 Rotary and rotary impact carbide drills - Part 1. Dimensions
GB/T 9799 Treated zinc plating on steel and other inorganic coatings GB/T 13912 Technical
requirements and test methods for hot-dip galvanized steel parts of metal-clad steel parts
GB/T 14684 Construction Sand GB/T 14685 Construction Pebbles and Crushed Stones
Stainless steel seamless pipe for GB/T 14975 structure GB/T 19292.2 Corrosion of metals
and alloys Guided values for atmospheric corrosion GB/T 19355.1 Guidelines and
recommendations for corrosion protection of zinc-coated steel structures Part 1. Basic
principles of design and corrosion protection GB/T 19355.2 Guidelines and
recommendations for corrosion protection of zinc-coated steel structures. Part 2. Hot dip
galvanizing GB/T 19355.3 Guidelines and recommendations for corrosion protection of
zinc-coated steel structures. Part 3. Powdered zincizing GB/T 25672 hammer drill and
sleeve hammer drill GB/T 31303 austenitic-ferritic duplex stainless steel rod JB/T 5067
Steel Parts Powder Zinc