



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

GB/T 8196-2018

**Safety of machinery -- Guards -- General requirements for the
design and construction of fixed and movable guards**

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Foreword

This Standard was drafted as per the rules specified in GB/T 1.1-2009.

This Standard replaced GB/T 8196-2003 Safety of Machinery - Guards - General Requirements

for the Design and Construction of Fixed and Movable Guards. Compared with GB/T 8196-2003, the major technical changes of this Standard are as follows besides the editorial modifications.

- Increase the ergonomic requirements for power-operated guards (see 5.2.5.4 of this Edition);
- Increase the requirements for guards with conductive parts (see 5.13 of this Edition);
- Increase the requirements for anti-climbing (see 5.18 of this Edition);
- Refine the requirements for fasteners of guards (see 5.19 of this Edition; 7.2 of 2003 Edition);
- Refine verification and validation of safety requirements for guards (see Clause 7 of this Edition; Clause 8 of 2003 Edition);

--- Add examples of retaining fasteners (see Annex A of this Edition);

--- Add test methods (see Annexes B and C of this Edition);

--- Delete Annexes B and C (see Annexes B and C of 2003 Edition).

This Standard used the translation method to equivalently adopt ISO 14120.2015 Safety of Machinery - Guards - General Requirements for the Design and Construction of Fixed and Movable Guards.

The Chinese documents that have a consistent correspondence with the international documents

normatively cited in this Standard are as follows.

--- GB/T 18569.1-2001 Safety of Machinery - Reduction of Risks to Health from Hazardous Substances Emitted by Machinery - Part 1.Principles and Specifications for Machinery Manufacturers (eqv ISO 14123-1.1998);

--- GB/T 18831-2017 Safety of Machinery - Interlocking Devices Associated with Guards - Principles for Design and Selection (ISO 14119.2013, IDT);

--- GB/T 19876-2012 Safety of Machinery - Positioning of Safeguards with respect to the Approach Speeds of Parts of the Human Body (ISO 13855.2010, IDT);

--- GB/T 19891-2005 Safety of Machinery - Hygiene Requirements for the Design of Machinery (ISO 14159.2002, IDT);

--- GB/T 23821-2009 Safety of Machinery - Safety Distances to Prevent Hazard Zones being

Reached by Upper and Lower Limbs (ISO 13857.2008, IDT).

This Standard made the following editorial modifications.

--- Delete the informative Annex D.

This Standard was proposed by and under the jurisdiction of National Technical Committee on

Mechanical Safety of Standardization Administration of China (SAC/TC 208).

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The historical editions replaced by this Standard are as follows.

--- GB/T 8196-1987, GB/T 8196-2003;

--- GB/T 8197-1987.

1 Scope

This Standard specifies general requirements for the design, construction, and selection of guards provided to protect persons from mechanical hazards.

2 Normative References

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the

undated documents, only the latest version (including all the amendments) is applicable to this

document.

GB 5226.1-2008 Electrical Safety of Machinery - Electrical Equipment of Machines - Part

1 General Requirements (IEC 60204-1:2005, IDT)

GB/T 15706-2012 Safety of Machinery - General Principles for Design - Risk Assessment and Risk Reduction (ISO 12100:2010, IDT)