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

GB/T 28217-2025

Replacing GB/T 28217-2011

Lens edgers

眼镜片磨边机

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting. This document replaces GB/T 28217-2011 "Edging Machines for Spectacle Lenses". Compared with GB/T 28217-2011, except for structural adjustments and editing In addition to the changes in performance, the main technical changes are as follows:

- Changed the scope (see Chapter 1, Chapter 1 of the.2011 edition);
- Changed the relevant definitions (see Chapter 3, Chapter 3 of the.2011 edition);
- Change "lens processing range" to "processing range", change the requirements and test methods (see 4.1 of the.2011 edition and 5.1);
- Change "processing lens accuracy" to "processing accuracy" (see 5.2 of the.2011 edition);
- Change "curvature of lens chamfer edge" to "lens chamfer", change requirements and test methods (see 4.2.1 and 5.2.1,.2011 5.2.1 of the.2014 edition);
- Change "lens dimension error" to "lens dimension", change the requirements and test methods (see 4.2.2 and 5.2.2, 5.2.2 of the.2011 edition);

1 Scope

China's national standard for spectacle lens edgers. It specifies the requirements and the test methods for the machines that grind a finished lens to the shape of a spectacle frame. An edger is the machine at the back of every optician's shop, and what it does decides whether a pair of glasses is comfortable or is returned. A lens arrives from the laboratory as a round blank with the prescription already ground into its surfaces; the edger cuts it to the outline of the chosen frame, puts a bevel or a groove on its edge so that it seats in the rim, and chamfers the sharp edges. If the outline is wrong the lens falls out or will not go in. If the optical centre moves during the cut the prescription is wrong in a way the wearer feels as eye strain without being able to say why. And if the bevel is in the wrong place on a curved lens the frame is distorted when the lens is fitted. So the requirements are dimensional and they are tight. The 2025 revision is largely a renaming and re-specification of those requirements, and the renaming is the substance: lens processing range becomes processing range, processing lens accuracy becomes processing accuracy, curvature of lens chamfer edge becomes lens chamfer, lens dimension error becomes lens dimension, shape similarity between lens and template or frame becomes shape similarity of lens, and lens size adjustment range gains an accuracy requirement. In each case the requirement and its test method are changed with the name, which is what makes the revision more than editorial. Issued on 30 May 2025 and in force since 1 December 2025, it replaces GB/T 28217-2011.

This document specifies the requirements, inspection rules, marking, packaging, transportation and storage of ophthalmic lens edge grinding machines and describes the corresponding tests. method. This document applies to the production, inspection, sales and maintenance management of edge grinding machines used in fitting eyeglasses. This document is not intended for large industrial edge grinding machines.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB 4793 Safety technical specification for electrical equipment for measurement, control and laboratory use

GB/T 13384 General technical requirements for packaging of electromechanical products

GB/T 14710 Environmental requirements and test methods for medical electrical appliances

GB/T 38004 Spectacle frame measurement system and terminology

GB/T 42125.1 Safety requirements for electrical equipment for measurement, control and

laboratory use Part

3 Terms and definitions

The terms and definitions defined in GB/T 38004 and the following apply to this document.

3.1 Edge grinding machines Equipment used for cutting (grinding) edges, polishing, etc. of lenses.

3.2 Patternedgrinders An edge grinding machine that uses a physical template to determine the shape of the lens for processing.

3.3 Patternlessgrinders An edge grinding machine that determines the shape of the lens for processing by scanning the shape of the front frame of the eyeglass frame and setting parameters without using a template.

4 Requirements

4.1 Processing scope The types of materials that can be processed and the diameter range of the processed lenses should be clearly stated. The machining accuracy shall meet the requirements of

4.2.1 and 4.2.2.