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

GB/T 29884-2025

Replacing GB/T 29884-2013

Grain and oil machinery - Rice colour sorter

粮油机械 大米色选机

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Standardization Administration of the PRC**

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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 replaces GB/T 29884-2013 "Grain and Oil Machinery - Rice Color Sorter". Compared with GB/T 29884-2013, the only changes are in the structural design. Aside from integration and editorial changes, the main technical changes are as follows:

---The chapter on "How it Works" has been removed (see Chapter 4 in the 2013 edition);

---Added mechanical performance requirements regarding "metalworking surfaces, hopper structure, and shape design" (see

5.2.3 and 5.2.4);

---The performance parameters of the color sorting process have been changed for different rice types (see 5.3.2,

6.3.2 in the 2013 version);

---Added process performance indicators for the net selection rate and the three-stage carry-out ratio (see 5.3.2);

---The requirements for "Environment" in the test conditions have been changed (see 6.1, 7.1 in the 2013 version);

---The process performance indicator of rejection rate has been removed (see section 6.3 of the 2013 edition);

---The requirements for test materials have been changed (see 6.3.1, 7.3.1 in the 2013 version);

1 Scope

GB/T 29884-2025 is the Chinese national standard covering the optical sorter that blows

discoloured and foreign grains out of a falling stream of rice - its detection accuracy, its carry-over of good grain into the reject, its throughput and the compressed air it consumes. It replaces GB/T 29884-2013. It was issued on 31 December 2025 and has been in force since 1 July 2026, replacing GB/T 29884-2013. The document is under the responsibility of the National Food and Strategic Reserves Administration. This page is published from the official record of the 2025 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 191 Packaging and Storage Graphic Symbols GB/T 1354 Rice

GB/T 3768 Acoustic pressure method for determining the sound power level and sound energy level of a noise source using a simplified measurement method based on the envelope above the reflecting surface. Easy Method

GB/T 5226.1 Electrical Safety of Machinery - Electrical Equipment of Machinery - Part

GB/T 5491 Sampling and Divided Sampling Methods for the Inspection of Grains and Oils

GB/T 8875 Grain and Oil Terminology - Rice Milling Industry

GB/T 9969 General Rules for Instructions for Use of Industrial Products GB/T 13306 Nameplates

GB 16798 Safety Requirements for Food Machinery

GB/T 19022 Measurement Management System - Requirements for Measurement Processes and Measuring Equipment

GB/T 24854 General Technical Requirements for Packaging of Grain and Oil Machinery Products

GB/T 25218 General Technical Requirements for Coating of Grain and Oil Machinery Products

3 Terms and Definitions

The terms and definitions defined in GB/T 1354 and GB/T 8875, as well as the following terms and definitions, apply to this document.

3.1 Rice color sorter Based on the differences in the optical characteristics of rice grains, and utilizing photoelectric principles, a feeding mechanism, a chute (trough), a photoelectric detector, a spray valve, and computer control are employed. The system is a device for selecting discolored grains from rice.

3.2 Discolored kernel Particles that are significantly different in color from normal rice grains, and whose discolored area on the abdomen or back is not less than 1 mm².

3.3 The mass fraction of discolored particles in a material relative to the total mass of the material.