

ICS 67.260
CCS X 91



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

GB/T 46672-2025

Grain and oil machinery - Bleaching towers

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Issued on: October 31, 2025

Implemented on: May 1, 2026

**Issued by: State Administration for Market Regulation;
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. 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 by the National Food and Strategic Reserves Administration. This document is under the jurisdiction of the National Technical Committee on Standardization of Grain and Oil (SAC/TC 270). This document was drafted by: COFCO Engineering Science (Xi'an) International Engineering Co., Ltd., Myander Group Co., Ltd., and Shandong Kaisida Machinery Manufacturing Co., Ltd. Limited Liability Company, COFCO Engineering Equipment Nanpi Co., Ltd., Xinjiang Agricultural Development Group Co., Ltd. The main drafters of this document are. Yang Fan, Du Xuanli, Wei Bing, Cheng Jie, Lin Fengyan, Zhang Lijun, Xu Jing, Zhang Ruiyang, Lu Hailong, and Wu Kuanglei. Hang Ming. Grain and oil machinery decolorization tower

1 Scope

GB/T 46672-2025 is the Chinese national standard covering the vessel where edible oil is bleached with clay under vacuum - its heating and agitation, the vacuum and the residence time that decide the colour removal, the materials against a hot oxidising oil, and the safety of a hot vacuum vessel. First edition, under the National Food and Strategic Reserves Administration, one of four oil mill machinery standards issued together. In force from 1 May 2026. Issued on 31 October 2025, it has been in force since 1 May 2026.

This document defines the terminology and definitions for decolorization towers, provides their working principles and basic parameters, and specifies technical requirements, inspection rules, and standards. The requirements for labeling, packaging, transportation, and storage are described, along with the corresponding test methods. This document applies to steam-stirred decolorizing towers for the continuous removal of pigments from vegetable oils using adsorption methods.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are listed below. 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 150.1 Pressure Vessels - Part

3 Terms and Definitions

The terms and definitions defined in GB/T 8873 and the following terms and definitions apply to this document.

3.1 bleaching This is a processing step that removes certain pigments from oils, improving their color and quality.

3.2 adsorbent Substances with strong adsorption properties.

Note. Commonly used materials for decolorizing edible oils include natural bleaching clay, activated clay, activated carbon, and attapulgite.

3.3 bleaching tower A tower-type device for continuous decolorization of oils and greases under vacuum.

4 Manufacturing, Inspection and Acceptance

GB/T 191 Packaging and Storage Graphic Symbols

GB/T 8873 Terminology for Grain and Oil Products - Oil Industry GB/T 13306 Nameplates

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

GB/T 24855 General Technical Requirements for the Assembly of Grain and Oil Machinery

GB/T 24857 General Technical Conditions for Plate Parts and Plate-Shaped Steel Components of Grain and Oil Machinery

GB/T 25218 General Technical Requirements for Coating of Grain and Oil Machinery Products GBZ 158 Occupational Hazard Warning Signs in the Workplace NB/T 47013 (All Parts) Non-destructive Testing of Pressure Equipment