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

GB/T 46298-2025

Grain and oil machinery - Hydrocyclone separator for germ

粮油机械 胚芽旋流分离器

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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/TC270). This document was drafted by: Guoliang Wuhan Scientific Research and Design Institute Co., Ltd. and Wenzhou Kangerda Industrial Co., Ltd. The main drafters of this document are: Gao Pei, Lu Yanqiu, Xiang Guanghui, Zhong Hua, Zhou Na, Guan Xuewei, and Yang Hualong. Grain and oil machinery germ hydrocyclone separator

1 Scope

GB/T 46298-2025 is the Chinese national standard covering separating maize germ from the slurry by density in a cyclone - the feed conditions, the split and the germ recovery against the starch lost with it, and the wear of a component handling an abrasive suspension continuously. First edition, in force from 1 May 2026. Issued on 5 October 2025, it has been in force since 1 May 2026.

This document specifies the model and basic parameters, technical requirements, inspection rules, marking, packaging, transportation, and storage of germ hydrocyclones. The content describes the experimental methods. This document applies to the design, manufacture, and quality inspection of equipment for separating germ during wet corn starch processing.

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 150.3 Pressure Vessels - Part

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Equipment used in wet corn starch production to separate the germ from materials that have undergone primary and secondary crushing.

4. Working Principle Based on the different densities of germ and corn kernels in the slurry after coarse crushing, the slurry entering the hydrocyclone tangentially under pressure passes through... Centrifugal force causes the germ and corn kernels to separate continuously.

4 Manufacturing, Inspection and Acceptance

GB/T 191 Packaging and Storage Graphic Symbols

GB 5009.88 National Food Safety Standard - Determination of Dietary Fiber in Food 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 24902 Grain and Oil Inspection - Determination of Crude Fat Content in Corn - Near Infrared Method

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

GB/T 36139 Method for Compiling Product Model Numbers for Grain and Oil Machinery

5 Model and Basic Parameters

5.1 Model Numbering Method Follow Appendix A.