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

GB/T 37497-2019

Grain and oil machinery - Softening kettles

粮油机械 软化锅

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard was proposed by the National Grain and Material Reserve Bureau. This standard is under the jurisdiction of the National Grain and Oil Standardization Technical Committee (SAC/TC270). This standard is mainly drafted by: Xi'an COFCO Engineering Research and Design Institute Co., Ltd., Shandong Kasida Machinery Manufacturing Co., Ltd. The main drafters of this standard. Wei Bing, Liu Runmin, Li Wubao, Zhang Ming, Yang Aiguo. Grain and oil machinery softening pot

1 Scope

China's national standard for softening kettles in grain and oil processing. It specifies the terms and definitions, the working principle, the classification, the model designation and basic parameters, the technical requirements and the testing. Softening is the step immediately before flaking, and it exists because oilseed as it arrives is too brittle to flake. The kettle is a vertical stack of steam-jacketed pans with a stirrer through the centre, and it raises the seed's temperature and moisture to a point where the cell structure becomes plastic rather than glassy. A seed flaked without softening shatters into fragments and fines instead of forming a coherent flake, and the extraction that follows is compromised by the fines. Too much heat or moisture and the flake becomes sticky and closes the percolation bed in a different way. The window is narrow and specific to the seed, and holding a batch within it uniformly is what the machine is designed to do.

This standard specifies the terms and definitions, working principle, classification, model preparation and basic parameters, technical requirements, and test of grain and oil machinery softening pot. Test methods, inspection rules, marking and packaging, transportation and storage requirements. This standard applies to the design, manufacture and quality inspection of grain and oil machinery softening pans.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. Pieces. For undated references, the

latest edition (including all amendments) applies to this document.

GB/T 150.2 Pressure Vessels Part 2. Materials

GB/T 150.3 Pressure Vessels Part 3. Design

GB/T 150.4 Pressure vessels - Part 4. Manufacture, inspection and acceptance

GB/T 191 packaging storage and transportation icon

GB/T 3768 Acoustic sound pressure method for the determination of noise source sound power level and sound energy level using the envelope measurement surface above the reflection surface Easy law General rules for

GB/T 4272 equipment and pipeline insulation technology

GB 5009.3 National standard for food safety - Determination of moisture in foods

GB/T 8873 Grain and oil terminology GB/T 13306 signage

GB/T 24854 Grain and oil machinery product packaging general technical conditions General technical conditions for

GB/T 24855 grain and oil machinery assembly General technical conditions for

GB/T 24857 grain and oil machinery plate and plate steel components

GB/T 25218 General technical requirements for the coating of grain and oil machinery products

JB/T 9014.6 Determination of temperature of bulk material in continuous conveying

equipment NB/T 47013.2 Non-destructive testing of pressure equipment - Part 2.

Radiographic testing TSGR0004 fixed pressure vessel safety technical supervision procedures

3 Terms and definitions

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

3.1 Soften softening A process of adjusting the moisture and temperature of the oil to soften the oil and increase the plasticity.

3.2 Softening pot softeningkettle Cylindrical layer softening device with steam jacket and agitator.