

ICS 73.120
CCS D96



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

GB/T 10605-2015

Replacing GB/T 10605-2003

Center driving rotary-rake thickener

中心传动式浓缩机

Issued on: December 10, 2015

Implemented on: January 1, 2017

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China;
Standardization Administration of China**

Table of Contents

1 Scope	
2 Normative References	
3 Product Classification...	
4 Technical Requirements	
5 Test Methods...	
6 Inspection Rules	
6.2 Exit-factory Inspection	
6.3 Type Inspection	
7 Marking, Labeling and Instructions for Use...	

1 Scope

GB/T 10605-2015 is the Chinese national standard on center driving rotary-rake thickener, in the field of mining and minerals. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 10 December 2015 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 January 2017. Classification: ICS 73.120, CCS D96. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This Standard specifies the product classification, technical requirements, test methods, inspection rules, marking, labeling, instructions for use, packaging, transportation and storage of center driving rotary-rake thickeners. This Standard is applicable to center driving rotary-rake thickeners used to thicken and deslime various slurries (hereinafter referred to as thickeners). This Standard is inapplicable to thickeners which have adiabatic device requirements for thickening tanks.

2 Normative References

The following documents are indispensable to the application of this document. In terms of references with a specified date, only versions with a specified date are applicable to this document. In terms of references without a specified date, the latest version (including all

the modifications) is applicable to this document.

GB/T 191 Packaging - Pictorial Marking for Handling of Goods

GB/T 1720-1979 Method of Test for Adhesion of Paint Films

GB/T 3768 Acoustics - Determination of Sound Power Levels and Sound Energy Levels of Noise Sources Using Sound Pressure - Survey Method Using an Enveloping Measurement Surface over a Reflecting Plane

GB 5226.1 Electrical Safety of Machinery - Electrical Equipment of Machines - Part 1: General Requirements

GB/T 6388 Transport Package Shipping Mark

GB/T 9969 General Principles for Preparation of Instructions for Use of Industrial Products

GB/T 13306 Plates

GB/T 13384 General Specifications for Packing of Mechanical and Electrical Product

GB/T 25706 Code of Designations for Mining Machinery Products

JB/T 5000.3 Heavy Mechanical General Techniques and Standards - Part 3: Welding

4 Technical Requirements

4.1 The thickeners shall comply with the requirements of this Standard and be manufactured in accordance with the drawings and technical documents approved by the specified procedures.

4.2 Before the assembly, the components and parts of the thickeners shall pass the inspections; the purchased parts and outsourced parts shall have a certificate of conformity.

4.3 The thickeners shall be able to normally operate under the following conditions:

- a) The altitude does not exceed 3,000 m;
- b) The ambient temperature is -20 °C ~ + 50 °C.

4.4 The welding quality of all components and parts of the thickeners shall comply with the requirements of JB/T 5000.3.

4.5 The assembly of the thickeners shall comply with the requirements of JB/T 5000.10.

4.6 The structure of the thickeners shall comply with the following requirements:

- a) All parts must not interfere with each other; all movable parts shall flexibly operate, and without jamming or abnormal sound;
- b) The mechanism shall not leak oil into the thickening tank;
- c) The rake frame shall be smoothly lifted;

- d) Easy to be installed, maintained and lubricated;
- e) There shall be an overload protection system.

4.7 The thickeners may be driven by an electric motor or a hydraulic motor. The driving device shall be able to implement multi-step or stepless speed regulation, so as to adapt to the requirements of different working conditions.

6 Inspection Rules

6.1 Classification of Inspection The inspection of the thickeners is divided into exit-factory inspection and type inspection.

6.2 Exit-factory Inspection

6.2.1 Each thickener shall pass the inspection by the manufacturer's quality inspection department before exiting the factory. When exiting the factory, the product shall be attached with a document proving its quality conformance.

6.2.2 The exit-factory inspection items are 4.5 ~ 4.15.

6.3 Type Inspection

6.3.1 Under one of the following circumstances, the thickeners shall receive type inspection:

- a) When new products are put into production or old products are transferred to another factory for production;
- b) After normal production, when there are relatively significant changes in product structure, materials or processes that might affect product performance;
- c) When the production has been suspended for over one year, and then, resumed;
- d) Products in normal production shall be inspected once every 3 years;