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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 10895-2025

Replacing GB/T 10895-2004

Centrifuge & separator - Measurement and evaluation of mechanical vibration

离心机、分离机 机械振动测试与评价

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1.Structure and drafting rules for standardization documents" Drafting. This document replaces GB/T 10895-2004 "Mechanical vibration test method for centrifuge separators" and is consistent with GB/T 10895-2004. In addition to structural adjustments and editorial changes, the main technical changes are as follows:

a) The scope of application has been changed to include centrifugal extractors and the phrase "This standard is only related to the vibration generated by the machine itself, and The statement "is independent of vibrations transmitted to it from the outside" (see Chapter

1, Chapter 1 of the.2004 edition);

b) The definition of "root mean square value of vibration velocity" has been changed, and the calculation of the root mean square value of vibration velocity has been deleted (see 3.1,

3.1 of the.2004 edition);

c) The definition of "vibration severity" has been changed (see 3.2,

3.2 of the.2004 edition);

d) The definition of "vibration amplitude" has been changed (see 3.3,

3.3 of the.2004 edition);

e) Added Chapter 4 "Test Environment and Machine Installation", adjusted the relevant content in the original standard to this chapter, and added the background of the test environment. The regulations on vibration, power supply and temperature are added, and the regulations on the installation of marine separators are added (see Chapter 4);

f) Changed the environmental adaptability of the test instrument and added requirements for test instruments in flammable and explosive environments (see 5.1.2, 5.1.3, 2004 edition,

g) Added requirements for test instrument installation (see 5.2);

h) Added provisions on the measured quantity (vibration amplitude) (see 5.3);

i) Deleted the instrument reading (see

1 Scope

GB/T 10895-2025 is the Chinese national standard on centrifuge & separator - measurement and evaluation of mechanical vibration, 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 1 August 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 February 2026. Classification: ICS 73.120, CCS J77. 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 document specifies the test methods and evaluation criteria for mechanical vibration in centrifuges and separators. This document is applicable to the mechanical vibration test and evaluation of centrifuges and separators with a vibration frequency in the range of

10Hz~1000Hz. Suitable for centrifugal extractors.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 2298 Mechanical vibration, shock and condition monitoring vocabulary

GB/T 3836.1 Explosive atmospheres Part

3 Terms and Definitions

The terms and definitions defined in GB/T 2298 and GB/T 4774 and the following apply to this document.

3.1 Vibration velocity effective value Vr.ms A value obtained by calculating the square root of the sum of the squares of the vibration velocities that vary with time within the sampling time.

3.2 Vibration intensity Under steady-state operating conditions within the specified support and rated operating speed range of the machine, two or three measurements on non-rotating parts The maximum broadband value of the machine vibration measured upward at multiple different points. Example. If the RMS values of the vibration velocity of a centrifuge measured at different measuring points are

4.6 mm/s respectively, take the vibration velocity as the value. The maximum root mean square value of the vibration is

4.6 mm/s, so the vibration intensity of this centrifuge is judged to be

1.Vibration severity is a general term used to characterize displacement, velocity and acceleration. In this document, vibration velocity is used to characterize it. Note 2 to entry. Broadband is usually equal to or greater than one octave.

3.3 vibration amplitude vibrationmagnitude Vibration velocity, vibration displacement or vibration acceleration value measured by a vibration measuring instrument.