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

GB/T 18328.1-2009

Replacing GB/T 18328-2001

**Vibration generating machines -- Guidance for selection -- Part
1: Equipment for environmental testing**

振动发生设备选择指南 第1部分：环境试验设备

(English Translation)

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Foreword

GB/T 18328-2009 "vibration generating apparatus Selection Guide" is divided into three parts.

This section GB/T 18328-2009 Part 1, and the rest later developed.

This section is equivalent international standards ISO 10813-1:2004 "vibration generating apparatus Selection Guide Part 1. Environmental Test Equipment" (In English).

This section is equivalent translation ISO 10813-1:2004 and its Errata ISO 10813-1:2004/Cor. 1:2006, the standard structure and technology Exactly the same technique on their content.

For ease of use, the editorial content part as follows.

--- Remove the ISO 10813-1:2004 foreword, preface rewritten this section;

--- The "this part of ISO 10813" be replaced by "GB/T 18328 this part" or "this part";

--- Use the decimal symbol instead of English as a decimal comma " , " ; " ;

--- Errata according to ISO 10813-1:2004/Cor...2006 the relevant section has been modified;

--- To ISO 10813-1:2004 references other international standards, have been adopted as the equivalent of a standard, instead of using our standard phase Corresponding to international standards, is not identical with direct reference to international standards for our standards.

This section is part of the GB/T 18328-2001 "shaker Selection Guide" amendments.

This portion of the GB/T 18328-2001 compared to the main changes are as follows.

- Modify the standard name;
- Adjust the standard structure, and there are great changes in the technical content of the standard;
- Increased introduction;
- Enriched the contents of Appendix A;
- Added Appendix B.

This section instead of the date of implementation of the GB/T 18328 environmental test section.

Appendix A of this section and Appendix B is an informative annex.

This part of the National mechanical vibration, shock and condition monitoring Standardization Technical Committee (SAC/TC53) and focal points.

Device Selection Guide vibration Part 1. Environmental Testing Equipment

1 Scope

GB/T 18328 in this section gives a choice for vibration test vibration generating apparatus in accordance with the requirements of the test method guidelines.

This section contains a selection of the following aspects.

- type of facility;
- Equipment specifications;
- Main components (not including the control system).

Note: Appendix A gives some choice examples.

2 Normative references

The following documents contain provisions which, through reference GB/T 18328 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 7670 electric vibration system (device) performance characteristics (GB/T 7670-2009, ISO 5344:2004, IDT) GB/T 10179 hydraulic servo vibration test equipment characteristics described method (GB/T 10179-2009, ISO 8626. 1989, IDT) ISO 2041 vibration and shock

vocabulary ISO 15261 vibration and shock generating systems vocabulary

3 Terms and Definitions

GB/T 7670, GB/T 10179, the terms and definitions established by ISO 2041 and ISO 15261 apply to this section.

4.1 Vibration test purposes

Purpose vibration test is to assess the product to maintain its integrity and ability to work characteristics at the specified severities vibration loads. according to the different tasks, the test can be divided into functional testing, strength testing and vibration resistance test.

Vibration severities strength test is used to evaluate the product subjected to a specified and, after removing incentives to maintain the normal operation capability. The intake Strength test line, vibration may cause the product to mechanical damage (fatigue), which can be used in the product is expected to withstand the vibration state Life.

Resistance to vibration test is used to assess the ability of the product to operate and maintain the operating parameters within an acceptable range under vibration conditions. Typically during the resistance when the vibration test, the product under normal operating conditions and subject to vibration state can work to a predetermined period of time without causing mechanical damage during operation of the product Between the defects and failures should be recorded.

4.2.1 Overview

Laboratory vibration test method can be used in various forms and multi-frequency sinusoidal excitation. as fixed-frequency sine, swept sine, random (narrow or wide GB/T 18328.1-2009/ISO 10813-1:2004