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

GB/T 7679.7-2025

Replacing GB/T 7679.7-2003

**Mining machinery terminology - Part 7: Mineral processing
equipment**

矿山机械术语 第7部分：洗选设备

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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 is part 7 of GB/T 7679 "Mining Machinery Terminology". GB/T 7679 has published the following parts.

- Part 1: Mining equipment;
- Part 2: Loading equipment;
- Part 3: Lifting equipment;
- Part 4: Mining transport equipment;
- Part 5: Crushing and grinding equipment;
- Part 6: Mining screening equipment;
- Part 7: Washing equipment;
- Part 8: Calcination equipment.

This document replaces GB/T 7679.7-2003 "Mining Machinery Terminology Part 7:

Washing Equipment" and is consistent with GB/T 7679.7-2003.

In addition to structural adjustments and editorial changes, the main technical changes are as follows.

a) The definition of magnetic separation equipment has been changed (see 3.5, 2.1.5 of the 2003 edition);

b) Added powder separator (see 4.3), dry permanent magnetic drum roller type high intensity magnetic separator (see 5.1.1.4.7), dry vibrating magnetic separator (see 5.1.1.4.8), vertical ring type electromagnetic induction high intensity magnetic separator (see 5.1.1.5.5), wet high intensity magnetic plate type magnetic separator (see 5.1.1.5.6), vertical cylinder type high Gradient magnetic separator (see 5.1.1.6.3), dynamic capture high gradient magnetic separator (see 5.1.1.6.4), pulsation (see 5.1.2.22), flameproof Ironware (see 5.5.2.14), shallow trough mechanical stirring flotation machine (see 6.1.1.1.2), curved bottom aerated stirring flotation machine (see 6.1.1.2.1), circular trough flotation machine (see 6.1.1.2.2), coal slime interference bed separator (see 7.7), heavy medium shallow trough separator (see 7.

8.1), hydraulic center drive thickener (see 8.1.2.1.4), deep cone thickener (see 8.1.2.1.5), box thickener (see 8.1.2.

1.6), peripheral transmission automatic segmented rake thickener (see 8.1.2.2.1), peripheral transmission center automatic rake thickener (see 8.1.

2.2.2.2) and sand washing machine (see 9.3);

c) The terminology of vertical ring pulsating high gradient magnetic separator has been changed (see 5.1.1.6.1, 2.3.1.1.6.2 of the 2003 edition);

d) Some inaccurate or incomplete definitions in the original standard have been revised.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed by the China Machinery Industry Federation.

This document is under the jurisdiction of the National Technical Committee for Standardization of Mining Machinery (SAC/TC88).

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The previous versions of this document and the documents it replaces are as follows.

- First published in 1987 as GB/T 7679.6-1987 "Mining Machinery Terminology - Mineral Processing Equipment" and GB/T 7679.7-1987 "Mining Machinery Terminology Coal Preparation Equipment";
- First revised in 2003 as GB/T 7679.7-2003 "Mining Machinery Terminology Part 7: Washing Equipment";
- This is the second revision.

Introduction

Terminology is a collection of names used to represent concepts in a specific discipline. It is one of the basic elements of standards and is an important part of scientific research, teaching, and technology.

GB/T 7679 "Mining Machinery Terminology" is based on the current situation of China's mining machinery industry.

A complete set of mining machinery industry terminology standards compiled based on international standards and foreign advanced standards.

It is one of the important basic industries that provides equipment for the mining and processing of materials, materials and fuels. It covers a wide range of areas and has a wide range of products.

The varieties are divided into the following parts.

- Part 1: Mining equipment. The purpose is to define the terms and definitions of mining machinery and mining equipment.
- Part 2: Loading equipment. The purpose is to define the terms and definitions of mining machinery loading equipment.
- Part 3: Hoisting equipment. The purpose is to define the terms and definitions of mining machinery and mining hoisting equipment.
- Part 4: Mining transport equipment. The purpose is to define the terms and definitions of mining machinery and mining transport equipment.
- Part 5: Crushing and grinding equipment. The purpose is to define the terms and definitions of mining machinery crushing and grinding equipment.

- Part 6: Mining screening equipment. The purpose is to define the terms and definitions of mining machinery and mining screening equipment.
- Part 7: Washing equipment. The purpose is to define the terms and definitions of mining mechanical washing equipment.
- Part 8: Roasting equipment. The purpose is to define the terms and definitions of mining machinery roasting equipment.

1 Scope

This document defines the terms and definitions for mechanical mining equipment.

This document is applicable to the design, scientific research, manufacturing, use, teaching, management, publishing, standard setting, academic exchanges and International trade and other fields.

2 Normative references

This document has no normative references.

3.1 and coal

Equipment that removes impurities from raw materials and separates them into products of different qualities and specifications as needed.

Note. It includes grading equipment, magnetic separation equipment, flotation equipment, gravity separation equipment, dehydration equipment and other auxiliary equipment. Raw materials include metal minerals, non-metallic minerals

3.2 classification

The process of separating mixed materials of different particle sizes and densities into different levels by utilizing the different settling speeds of mineral particles.

3.3

Equipment that separates materials into several particle sizes.

3.4 Magnetic separation

A mineral processing method based on the magnetic differences of various minerals.

3.5

A device that can generate a certain magnetic field and use the difference in magnetic properties of materials for sorting.