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**Green manufacturing - Evaluation indexes**

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## Foreword

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Green evaluation of manufacturing organizations, products and life cycle processes is helpful for organizations to identify problems and make timely improvements, and also helps governments Government management and social supervision will promote the green, low-carbon, circular and high-quality development of organizations: Establish a comprehensive and scientific green evaluation index system The system is the basis for standardizing green evaluation work: The terminology and green manufacturing attributes of this document are consistent with GB/T 28612-2023 "Green Manufacturing Terminology" and GB/T 28616-2023 "Green Green Manufacturing Attributes", with green manufacturing attributes (resources and energy, ecological environment, health and safety) throughout the product life cycle and Taking green manufacturing management as the main framework, a green manufacturing evaluation index system was constructed: This document unifies the

names and classifications of green manufacturing evaluation indicators: The selected indicators are common indicators for the manufacturing industry and do not involve specific industries: When applied to an industry (or organization), different evaluation objects (organizations, products and processes) can be selected from this article: Applicable indicators should be selected from the documents, and the evaluation indicators should be refined, supplemented and improved according to the characteristics of the industry (or organization): Green manufacturing evaluation indicators

## 1 Scope

China's national evaluation indexes for green manufacturing. Green manufacturing in the Chinese policy framework is a system rather than a claim: it covers green factories, green products, green supply chains and green industrial parks, and a manufacturer that qualifies gains access to procurement preferences, financing and in some sectors permission to operate. That gives the evaluation indexes real weight, and it makes their design consequential. Indexes that measure inputs - energy per unit of output, water, material use, waste generated - are objective and gameable by outsourcing the dirty steps. Indexes that measure management systems are harder to game and easier to satisfy on paper. A workable scheme needs both, weighted by sector, and it needs the boundary drawn so that a factory cannot improve its score by moving an operation to a supplier who is not being measured.

This document specifies the principles for constructing a green manufacturing evaluation index system, the evaluation index system framework, and the evaluation indicators and explanations: This document is applicable to qualitative and/or quantitative green evaluation of organizations, products and processes:

## 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 28612 Green Manufacturing Terminology

## 3 Terms and definitions

The terms and definitions defined in GB/T 28612 and the following apply to this document:  
3:1 green manufacturing A modern manufacturing model with low consumption, low emissions, high efficiency and high benefits: Its essence is to comprehensively consider the production and We will integrate green development concepts and management

requirements into the entire product life cycle: In the life cycle, we will promote the green transformation and upgrading of traditional industries through the deep transformation of manufacturing models, lead the green development of emerging industries, and jointly promote carbon reduction, Reduce pollution, expand greening, and achieve growth, thereby achieving coordinated optimization of economic, ecological, and social benefits: [Source: GB/T 28612-2023, 3:2] 3:

2 The resource, energy, ecological environment, and health and safety characteristics of organizations, processes, products and materials: [Source: GB/T 28612-2023, 3:4] 3:

3 Material A general term for substances and articles used in the product life cycle: [Source: GB/T 28612-2023, 4:1:11]

## **4 Principles for constructing the evaluation index system**

1 Comprehensive and systematic The index system covers green indicators involved in the organization, product and its entire life cycle, and arranges them systematically: It reflects the comprehensive situation of the evaluation object in a comprehensive and systematic manner: 4:

2 Scientific rationality Guided by green manufacturing and related evaluation theory knowledge, the index system has a rigorous and reasonable logical structure, and the index concepts are clear, concise, and avoid