

ICS 27.140
CCS K 55



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

GB/T 28572-2025

Replacing GB/T 28572-2012

**Specification and technical parameters of inlet valves for large
and medium-sized hydraulic turbines**

大中型水轮机进水阀门规格及技术参数

Issued on: February 28, 2025

Implemented on: September 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

Preface	III
1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Butterfly valve	1
5 Ball valve	2
6 Method for compiling water inlet valve model, basic parameters and basic dimensions, water inlet valve appearance drawing	3
Appendix A (Normative) Method for compiling water inlet valve models	4
Appendix B (Informative) Basic parameters and basic dimensions of water inlet valves	5
Appendix C (informative) Appearance of water inlet valve	17

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 28572-2012 "Water Inlet Valves for Large and Medium-sized Turbines".

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

- a) The wording in the scope was modified, "spherical valve" was changed to "ball valve", and the bracketed content "including storage pumps, water transfer pumps and water "Water transfer pump" in "Pump turbine" (see Chapter 1, Chapter 1 of the 2012 edition);
- b) GB/T 14478 has been modified as an undated reference (see Chapter 4 and Chapter 5, Chapter 4 and Chapter 5 of the 2012 edition);
- c) The transient pressure is replaced by the design pressure (not less than the transient pressure) (see Chapter 4, Chapter 4 of the 2012 edition);
- d) Delete the maximum static water head in Table 1 (see Chapter 4, Chapter 4 of the 2012 Edition);
- e) The "design pressure" value in Table 1 has been modified, i.e. the original value is divided by 100 and two decimal places are retained (see Chapter 4, Chapter 3 of the 2012

edition);

f) "Centimeters" in Appendix A are changed to "millimeters" (see Appendix A, Appendix A of the 2012 edition);

g) In Appendix A, "maximum static water head" is changed to "design water head" (see Appendix A, Appendix A of the 2012 edition).

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 Electrical Equipment Industry Association.

This document is under the jurisdiction of the National Technical Committee for Standardization of Hydraulic Turbines (SAC/TC175).

This document was drafted by: Dongfang Electric Corporation, Harbin Electric Machinery Co., Ltd., China Southern Power Grid Energy Storage Co., Ltd.

Co., Ltd., PowerChina Chengdu Survey and Design Institute Co., Ltd., State Grid New Energy Group Co., Ltd., China Three Gorges Construction (Group) Co., Ltd., China Power Construction Group East China Survey and Design Institute Co., Ltd., China Power Construction Group Beijing Survey and Design Institute Co., Ltd., China Power Construction Group Zhongnan Survey and Design Institute Co., Ltd., Sichuan Chuantou Tianwanhe Development Co., Ltd., Chongqing Turbine Factory Co., Ltd.

Ren Company, Liaoning Dongke Electric Power Co., Ltd.

The main drafters of this document are: Liu Lizheng, Gao Hongjun, Chen Hongyu, Sun Wenbin, Liu Demin, Gao Xin, Song Min, Xiao Wei, Li Guoya, Lei Xingchun, Shu Lingfeng, Zhou Zhenzhong, Li Li, Wu Chao, Qin Bo, Gao Shan, Wang Huanmao, Liu Xia, Wu Jibing, Huang Shihai, Gao Yanming.

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

- First published in 2012 as GB/T 28572-2012;
- This is the first revision.

Specifications and technical parameters of water inlet valves for large and medium-sized turbines

1 Scope

This document specifies the specification series, basic parameters and basic dimensions of water inlet valves for large and medium-sized turbines, as well as the method for compiling models.

This document is applicable to turbines (including storage pumps, water transfer pumps

and pump turbines) with nominal diameters of inlet valves of 1000mm~ Specifications and technical parameter selection of 10000mm butterfly valve and ball valve with nominal diameter of 500mm~5000mm.

2 Normative references

GB/T 14478

3 Terms and definitions

There are no terms or definitions that require definition in this document.

4 Butterfly valve

The nominal diameter and water head grade of the newly designed butterfly valve are generally referred to the provisions of Table 1. If the standard size cannot be met, the nominal diameter For diameters below 2500mm, the selection can be made at intervals of 50mm; for diameters above 2500mm, the selection can be made at intervals of 100mm.

All matters specified shall comply with the provisions of GB/T 14478. If there are special requirements, they shall be determined by negotiation between the owner and the equipment contractor.

Table 1 Butterfly valve specification series nominal diameter and design pressure classification

Serial number	Nominal diameter mm	First gear design pressure MPa	Second gear design pressure MPa	Third gear design pressure MPa	Fourth gear design pressure MPa
1	1000	0.85	1.40	2.25	3.40
2	1250	0.85	1.40	2.25	3.40
3	1500	0.85	1.40	2.25	3.40
4	1750	0.85	1.40	2.25	3.40
5	2000	0.85	1.40	2.25	3.40
6	2250	0.85	1.40	2.25	3.40
7	2500	0.85	1.40	2.25	3.40
8	2800	0.85	1.40	2.25	3.40