

ICS 91.140.10
CCS Q 83

JG

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

JG/T 148-2002

Replacing JG/T 148-2002; JG/T 1-1999

**Steel tube radiator
(English Translation)**

Issued on: May 30, 2018

Implemented on: December 1, 2018

**Issued by: Ministry of Housing and Urban-Rural Development of the
People's Republic of China**

Table of Contents

Foreword	
1 Scope	
2 Normative references	
3 Terms and definitions	
4 Classification and marking	
4.1 Classification	
4.2 Marking	
5 Materials and Structure	
5.1 Materials	
5.2 Structure	
6 Requirements	
6.1 Working pressure	
6.2 Single piece standard heat dissipation	
6.3 Material size	
6.4 Welding quality	
6.5 Thread quality	
6.6 Coating quality	
6.7 Dimensions and limit deviation	
7 Test methods	
7.1 Working pressure	
7.2 Single piece standard heat dissipation	
7.3 Material size	
7.4 Welding quality	
7.5 Thread quality	
7.6 Coating quality	
7.7 Dimensions and limit deviation	
8 Inspection rules	
8.1 Inspection classification	
8.2 Factory inspection	
8.3 Type test	
9 Logo, instruction manual and certificate	
9.1 Mark	

9.2 User's Manual

9.3 Certificate

10 Packaging, transportation and storage

10.1 Packaging

10.2 Transportation

10.3 Storage

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces JG/T 1-1999 "Steel Column Radiator" and JG/T 148-2002 "Steel Tube Radiator".

This standard is a revision of JG/T 1-1999 "Steel Column Radiator" and JG/T 148-2002 "Steel Tube Radiator", and the main technical changes compared to JG/T 1-1999 and JG/T 148-2002 are as follows.

- Added terms and definitions;
- Added classification;
- Modified the mark;
- Increased materials and structure;
- Modified work pressure;
- Modified the standard heat dissipation of a single piece;
- Modified the thread quality requirements;
- Modified the method for determining the adhesion of the coating;
- Added inspection item list;
- Modified the inspection sampling plan;
- Added instructions for use.

This standard was proposed by the Institute of Standardization of the Ministry of Housing and Urban-Rural Development.

This standard is under the jurisdiction of the Building Environment and Energy Conservation Standardization Technical Committee of the Ministry of Housing and Urban-Rural Development.

This standard was drafted. China Building Metal Structure Association, Sender (China)

HVAC Equipment Co., Ltd., Tianjin Martin Kanghua Stainless Steel Products Co., Ltd., Guangdong Sun Flower Heating Equipment Co., Ltd., Tangshan Datong Metal Products Co., Ltd., Shannan Southeast Mountain Heating Co., Ltd.

Division, Beijing Pajie HVAC Environmental Engineering Technology Co., Ltd., Harbin Maoershan Radiator Co., Ltd., Shandong Xinhuaixing HVAC Technology Company, Beijing St. Lawrence Radiator Manufacturing Co., Ltd., Henan Ganfeng HVAC Technology Co., Ltd., Shanxi Qingxu Xuedong Radiator Company, Zhejiang Rongrong Industrial Co., Ltd., Qingdao Yirun HVAC Equipment Co., Ltd., Henan Ward New Century Energy Co., Ltd., Henan Hongxing HVAC Equipment Co., Ltd., Tianjin Zeao Metal Products Co., Ltd., Wangkui Longda Metal Products Co., Ltd., Fengrun District, Tangshan City Xin Metal Products Co., Ltd., Beijing Building Materials Inspection and Research Institute Co., Ltd., China Academy of Building Research Ltd., National Radiator Quality Supervision and Inspection Center, Liaoning Province Plumbing Equipment Product Quality Supervision and Inspection Center.

1 Scope

This standard specifies the terms and definitions, classification and marking, materials and structures, requirements, and tests of steel pipe radiators (hereinafter referred to as "heat sinks").

Methods, inspection rules, signs, instructions for use and certification, packaging, transportation and storage.

This standard applies to industrial and civil building heating systems, with a temperature not higher than 95 ° C and water quality in accordance with GB/T 29044-2012

4.5 The hot water specified is the heat sink of the heat medium.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 191 packaging storage and transportation icon GB/T 700 carbon structural steel GB/T 1732 paint film impact resistance test GB/T 2828.1. Sampling procedures for sampling by sampling - Part 1 . Batch-to-batch sampling plan, searched by AQL GB/T 4956 magnetic substrate on non-magnetic covering layer thickness measurement magnetic method GB/T 5213 cold rolled low carbon steel plate and strip GB/T 7306.1 55° sealed pipe threads - Part 1. Cylindrical internal and conical external threads GB/T 9286 color and varnish paint film cross-cut test GB/T 9969 General guidelines for the use of industrial products GB/T

12467.3 Welding quality requirements for metallic materials - Part 3. General quality requirements GB/T 13754 heating radiator heat dissipation method GB/T 19866 Welding procedure specification and general principles of assessment GB/T 29039 steel heating radiator HG/T.2006 thermosetting powder coating

3 Terms and definitions

The following terms and definitions as defined in GB/T 29039 apply to this document.

A heat sink formed by a combination of a column steel tube and an upper and lower sheet head or a header tube.

Title terminal

The cold-rolled steel sheet is formed by stamping and is welded to the steel pipe to form a component of the steel heating radiator.

Note: The film head formed by two materials is a combined film head, and the film head formed by a single piece of material is an integral film head.

Single piece standard heat dissipation standard heat emission per unit radiator the average value of the standard heat dissipation measured by the sample is measured as the average of the number of pieces.

Single length single column length the actual length of the single piece is processed.

Combination length the actual length of the heat sink that is welded from multiple pieces.

4.1 Classification

4.1.1

The radiator shall be divided into 300mm, 400mm, 500mm, 600mm, 900mm and 1200mm according to the center distance of the inlet and outlet of the same side.

1500mm and 1800mm.

4.1.2

The heat sink is divided into round tube column type, elliptical tube column type and elliptical tube overlapping type according to the structure type, and the codes are YZ, TZ and TD respectively.

4.2 Marking

Example.

The number of single-column columns is 3, the width is 100mm, the center-side inlet and outlet is 500mm, and the working pressure is 1.0MPa.