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

**GB/T 27698.6-2011**

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**Test method for the performance of heat exchangers and heat  
exchange element -- Part 6: Finned tube for air-cooled heat  
exchangers**

热交换器及传热元件性能测试方法 第6部分：空冷器用翅片管

**(English Translation)**

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### Foreword

GB/T 27698 "heat exchangers and heat transfer device performance test methods" is divided into eight sections.

- Part 1. General requirements;
- Part 2. shell and tube heat exchanger;
- Part 3. plate heat exchanger;
- Part 4. spiral plate heat exchanger;
- Part 5. shell and tube heat exchanger heat transfer tubes;
- Part 6. Used for air cooling fin tube;
- Part 7. Air Cooler noise measurement;
- Part 8. Calibration of industrial heat exchangers.

This section GB/T 27698 Part 6.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This part of the National boiler pressure vessel Standardization Technical Committee (SAC/TC262) and focal points.

This section is responsible for drafting units. High-tech Gansu Lanke Petrochemical Equipment Co., Ltd. (Lanzhou Petroleum Machinery Research Institute).

It participated in the drafting of this section. Country refining oil drilling equipment for Quality Supervision and Inspection Center, industrial machinery energy-saving projects Heat Transfer Technology Center, Panjin Xingda Petrochemical Equipment Co., Ltd.

## 1 Scope

This section GB/T 27698 specifies the test method for single-tube heat transfer performance of the finned tube air cooling Used.

This section applies to the test fluid, typically steam tube, pipe outside air.

This section applies to a variety of types and materials Used air-cooled finned tube heat transfer performance test.

This section considers only the finned tube material thermal resistance, does not consider the finned tube inside and outside fouling resistance.

## 2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 1236 Industrial fans using standardized airways performance test JB/T 4740 air-cooled heat exchanger types and basic parameters NB/T 47007 (JB/T 5758) air-cooled heat exchangers

## 3 Terminology, symbols

JB/T 4740, NB/T 47007 and as defined in the following terms and symbols apply to this section.

### 3.1 Terms

#### 3.1.1

Specimen testsample

Providing heat transfer performance of the finned tube test.

#### 3.1.2

Pretreatment section to ensure the test media meet the requirements and the provisions of a specific part of the device.

#### 3.1.3

Test section testingsection in the full length of the specimen, some purposely choose to test the selected segment called the test section.

#### 3.1.4

Measurement segment measuringsection for accurate measurement of test parameters

and the specific part of the device specified.

### 3.1.5

Working section Duct flow of air across the finned tube under the straight pipe section.