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

GB/T 28783-2012

Pneumatic fluid power -- Standard reference atmosphere

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Foreword

This standard rule according to GB/T 1.1-2009 given draft.

The standard translation method using equivalent international standards ISO 8778.2003 "pneumatic transmission standard reference atmosphere" (in English).

Correspondence between the consistency of the standards of international documents and normative references of the following documents.

--- GB/T 17446-2013 fluid power systems and components vocabulary (ISO 5598.2008, IDT).

This standard made the following editorial changes.

--- Remove the "Table 1" in the "Note.1990 is given the same reference standard atmosphere definition. and ISO 8778.";

--- In the "A.4.1", the "m²/s²K" to "m²/(s²K)".

The standard proposed by China Machinery Industry Federation.

This standard by the National Standardization Technical Committee of hydraulic and pneumatic (SAC/TC3) centralized.

This standard is drafted by. Air Ltd. Wuxi Institute of Technology.

Participated in the drafting of this standard. Ningbo Xingjian Space Machinery Plant, Weihai Bo wins Pneumatic Co., Tsinghua University.

Introduction

In the pneumatic system, power is compressed gas through the loop to pass and control

when using compressed gas pneumatic components, equipment

Or systems, indicate its characteristics, the need for a standard reference atmosphere, so that the data obtained under different atmospheric conditions can be compared.

GB/T 28783-2012/ISO 8778.2003

Pneumatic standard reference atmosphere

1 Scope

This standard defines a standard atmosphere reference value used to represent the performance data of components and systems in pneumatic technology.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated edition applies to this article

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

ISO 5598 fluid power systems and components vocabulary
(Fluidpowersystemsandcomponents-Vocabulary)

3 Terms and Definitions

ISO 5598 define the following terms and definitions apply to this document.

3.1

Atmosphere atmosphere

The temperature, relative humidity, air pressure in one or several defined environmental conditions.

3.2

Reference atmospheric referenceatmosphere

By appropriate conversion factor can be determined under other conditions associated with atmospheric air up.

Note 1. The term "other atmospheric" may refer to a pressurized or vacuum conditions.

Note 2. A discussion on another reference atmospheric appendix.

3.3

Standard reference atmosphere standardreferencdatmosphere

Close to sea level atmospheric pressure and a temperature of a typical room temperature and relative humidity of the atmosphere is determined arbitrarily.

4.1 standard reference atmosphere defined in Table 1.

Table 1 is defined standard reference atmosphere

Pressure Temperature Relative humidity

100kPa (1bar) 20 degrees C 65%

4.2 When the free gaseous state to represent the magnitude of the gas when using the abbreviations ANR (standard reference atmosphere) plus brackets, it should be placed in a single

After the bits instead of value, such as.

qv = chim3/s (ANR)

5 Marking explanation

When choosing to comply with this standard, we recommend the following description of the inspection reports, catalogs and sales documents.

"Standard reference atmosphere in line with GB/T 28783-2012/ISO 8778.2003."

GB/T 28783-2012/ISO 8778.2003