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STANDARD

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(ISO 6953-1 : 2000)

(JFPA/JSA)

**Pneumatic fluid power —
Compressed air pressure regulators
and filter-regulators —Part 1: Main
characteristics to be included in
literature from suppliers and
product-marking requirements**

ICS 23.100.50

Reference number : JIS B 8372-1 : 2003 (E)

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee, as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Fluid Power Association (JFPA)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14. Consequently **JIS B 8372-1:2000** is replaced with this Standard.

This revision has been made based on **ISO 6953-1:2000** *Pneumatic fluid power — Compressed air pressure regulators and filter-regulators — Part 1: Main characteristics to be included in literature from suppliers and product-marking requirements* for the purposes of making it easier to compare this Standard with International Standard; to prepare Japanese Industrial Standard conforming with International Standard; and to propose a draft of an International Standard which is based on Japanese Industrial Standard.

JIS B 8372 consists of the following 2 parts under the general title “*Pneumatic fluid power — Compressed air pressure regulators and filter-regulators*”:

Part 1: Main characteristics to be included in literature from suppliers and product-marking requirements

Part 2: Test methods to determine the main characteristics to be included in literature from suppliers.

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Pneumatic fluid power — Compressed air pressure regulators and filter-regulators — Part 1: Main characteristics to be included in literature from suppliers and product-marking requirements

Introduction The Japanese Industrial Standard has been prepared based on the second edition of **ISO 6953-1** *Pneumatic fluid power — Compressed air pressure regulators and filter-regulators — Part 1: Main characteristics to be included in literature from suppliers and product-marking requirements* published in 2000 without modifying the technical contents.

Portions underlined with dots are the matters not stated in the original International Standard.

In pneumatic fluid power systems, power is transmitted and controlled through air under pressure circulating within a circuit. Where reduction and regulation of the pressure is desired, the regulators and filter-regulators are components designed to maintain the compressed air pressure approximately constant.

1 Scope This part of **JIS B 8372** specifies the characteristics of compressed air pressure regulators to be included in literature from their suppliers. It also applies to filter-regulators.

In addition, it specifies the product marking requirements for pressure regulators and filter-regulators.

This part of **JIS B 8372** is applicable to compressed air pressure regulators with a rated inlet pressure of up to 2.5 MPa and an outlet adjustment pressure of up to 1.6 MPa, and to filter-regulators with rated inlet and outlet pressures of up to 1.6 MPa, in which the major contaminants are removed by mechanical means. The maximum temperature is 80 °C for regulators and filter-regulators and applies to materials of construction that are light alloys (aluminium, etc.), zinc die-casting alloys, brass, steel and plastic.

The rated pressure should be selected from the preferred pressures listed in **ISO 2944**.

NOTE : The International Standard corresponding to this Standard is as follows.

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are **IDT** (identical), **MOD** (modified), and **NEQ** (not equivalent) according to **ISO/IEC Guide 21**.

IEC 6953-1:2000 Pneumatic fluid power — Compressed air pressure regulators and filter-regulators — Part 1: Main characteristics to be included in literature from suppliers and product-marking requirements (IDT)

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. If the indication

of the year of coming into effect or the year of publication is given to these referred standards, only the edition of the indicated year constitutes the provision of this Standard but the revision and amendment made thereafter do not apply. The normative references without the indication of the year of coming into effect apply only to the most recent edition (including amendments).

JIS B 0142 *Glossary of terms for oil hydraulics and pneumatics*

NOTE : **ISO 5598:1985** *Fluid power systems and components — Vocabulary* is equivalent to the said standard.

JIS B 8371-2:2000 *Pneumatic fluid power — Compressed air filters — Part 2: Test methods to determine the main characteristics to be included in supplier's literature*

NOTE : **ISO 5782-2:1997** *Pneumatic fluid power — Compressed air filters — Part 2: Test methods to determine the main characteristics to be included in supplier's literature* is identical with the said standard.

JIS B 8372-2:2000 *Pneumatic fluid power — Compressed air pressure regulators and filter-regulators — Part 2: Test methods to determine the main characteristics to be included in literature from suppliers*

NOTE : **ISO 6953-2:2000** *Pneumatic fluid power — Compressed air pressure regulators and filter-regulators — Part 2: Test methods to determine the main characteristics to be included in literature from suppliers* is identical with the said standard.

ISO 2944:2000 *Fluid power systems and components — Nominal pressures*

ISO 11727:1999 *Pneumatic fluid power — Identification of ports and control mechanisms of control valves and other components*

3 Terms and definitions For the purposes of this part of **JIS B 8372**, the terms and definitions given in **JIS B 0142** and the following apply.

3.1 rated pressure pressure, confirmed through testing, at which a component or piping is designed to operate for a number of repetitions sufficient to assure adequate service life

3.2 compressed air pressure regulator component designed to maintain compressed air pressure approximately constant within an enclosed circuit despite variations in operating flow rate and inlet pressure

3.3 relieving pressure regulator pressure regulator equipped with an unloading device that will open if the outlet pressure exceeds the original setting by a sufficient degree, and exhaust a limited flow rate of air from the outlet circuit to the atmosphere

Information : **JIS B 8370:2000** *Pneumatic fluid power — General rules relating to systems* specifies that “relieving pressure regulators are not safety relief devices and shall not be the sole device to prevent excess pressure where its relief capability is not adequate.”

3.4 filter-regulator device that combines the filter and regulator onto one body as a single unit