INTERNATIONAL STANDARD

ISO 8778

First edition
1990-09-01

Pneumatic fluid power — Standard reference atmosphere

Transmissions pneumatiques — Atmosphère normale de référence

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ISO 8778:1990
https://standards.iteh.ai/catalog/standards/sist/9a675fca-127d-4c79-84b0-472f3d20bc4e/iso-8778-1990

Reference number
ISO 8778:1990(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

International Standard ISO 8778 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*.

ISO 8778:1990
https://standards.iteh.ai/catalog/standards/sist/9a675fca-127d-4c79-84b0-472f3d20bc4e/iso-8778-1990

© ISO 1990
All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization
Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

Introduction

In pneumatic fluid power systems, power is transmitted and controlled through a fluid, most commonly compressed air, under pressure within a circuit. In presenting characteristics of a component, equipment or system that uses compressible fluid power, it is necessary to have a standard reference atmosphere for the gas.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ISO 8778:1990
https://standards.iteh.ai/catalog/standards/sist/9a675fca-127d-4c79-84b0-472f3d20bc4e/iso-8778-1990

iTeh STANDARD PREVIEW
(standards.iteh.ai)

This page intentionally left blank

ISO 8778:1990
https://standards.iteh.ai/catalog/standards/sist/9a675fca-127d-4c79-84b0-472f3d20bc4e/iso-8778-1990

Pneumatic fluid power — Standard reference atmosphere

1 Scope

This International Standard specifies the reference values for use in pneumatic fluid power technology for stating performance data to which values of characteristics of pneumatic fluid power components and/or systems determined under different atmospheric conditions could be related when the relevant conversion factors are known.

This will permit the results obtained under different conditions to be compared, provided that the conversions in question are possible within the specified limits of precision.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ISO 8778:1990
https://standards.iteh.ai/catalog/standards/sist/9a675fca-127d-4c79-84b0-f72f3d2b684e/iso-8778-1990

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 558:1980, *Conditioning and testing — Standard atmospheres — Definitions*.

ISO 5598:1985, *Fluid power systems and components — Vocabulary*.

3 Definitions

For the purposes of this International Standard, the definitions given in ISO 5598 together with the following (taken from ISO 558), apply.

3.1 reference atmosphere: The agreed atmosphere to which test results determined in other atmospheres may be corrected if suitable correlation factors are available from established data.

NOTES

1 A standard reference atmosphere or reference atmosphere is an atmosphere for which the temperature, humidity and/or pressure characteristics being measured follow a known law.

2 In practice, test results are often only corrected to a reference temperature because data for temperature correlation factors are more generally available than those for relative humidity and atmospheric pressure.

3.2 atmosphere: Ambient conditions defined by one or more of the parameters:

— temperature;

— relative humidity;

— pressure.

4 Standard reference atmosphere

Temperature	Relative humidity	Atmospheric pressure
20 °C	65 %	100 kPa (1 bar)

NOTE — For gases, when the quantity is expressed as free gas, the abbreviation ANR (standard reference atmosphere) shall follow the unit, not the value: for example

$$q_V = x \text{ m}^3\text{/s (ANR)}$$

iTeh STANDARD PREVIEW
(standards.iteh.ai)

This page intentionally left blank

ISO 8778:1990
https://standards.iteh.ai/catalog/standards/sist/9a675fca-127d-4c79-84b0-472f3d20bc4e/iso-8778-1990

iTeh STANDARD PREVIEW
(standards.iteh.ai)

This page intentionally left blank

ISO 8778:1990
https://standards.iteh.ai/catalog/standards/sist/9a675fca-127d-4c79-84b0-472f3d20bc4e/iso-8778-1990

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 8778:1990
https://standards.iteh.ai/catalog/standards/sist/9a675fca-127d-4c79-84b0-472f3d20bc4e/iso-8778-1990

UDC 62-85:551.52/.57

Descriptors: pneumatic fluid power, standard atmosphere.

Price based on 1 page