

STANDARD

9329-2

First edition  
1997-03-01

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**Seamless steel tubes for pressure purposes — Technical delivery conditions —**

**Part 2:**

Unalloyed and alloyed steels with specified elevated temperature properties

*Tubes en acier sans soudure pour service sous pression — Conditions techniques de livraison —*

*Partie 2: Aciers non alliés et alliés avec caractéristiques spécifiées à température élevée*



Reference number  
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## Contents

	Page
<b>1</b> Scope .....	<b>1</b>
<b>2</b> Normative references .....	<b>1</b>
<b>3</b> Symbols and denominations .....	<b>2</b>
<b>4</b> Information to be supplied by the purchaser .....	<b>3</b>
<b>5</b> Manufacturing process .....	<b>3</b>
<b>6</b> Metallurgical properties .....	<b>4</b>
<b>7</b> Dimensions, masses and tolerances .....	<b>9</b>
<b>8</b> Technical delivery conditions .....	<b>10</b>
<b>9</b> Inspection and testing .....	<b>11</b>
<b>10</b> Marking .....	<b>16</b>
<b>11</b> Protection .....	<b>17</b>
<b>12</b> Documents .....	<b>17</b>
<b>13</b> Claims after delivery .....	<b>17</b>

## Annex

<b>A</b> Long-term rupture values .....	<b>18</b>
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## 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.

International Standard ISO 9329-2 was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 19, *Technical delivery conditions for steel tubes for pressure purposes*.

It cancels and replaces ISO 2604-2:1975, of which it constitutes a technical revision, together with parts 1, 3 and 4 of ISO 9329.

ISO 9329 consists of the following parts, under the general title *Seamless steel tubes for pressure purposes — Technical delivery conditions*:

- *Part 1: Unalloyed steels with specified room temperature properties*
- *Part 2: Unalloyed and alloyed steels with specified elevated temperature properties*
- *Part 3: Unalloyed and alloyed steels with specified low temperature properties*
- *Part 4: Austenitic stainless steels (Partial revision of ISO 2604-2:1975)*

Annex A forms an integral part of this part of ISO 9329.

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# Seamless steel tubes for pressure purposes — Technical delivery conditions —

## Part 2:

## Unalloyed and alloyed steels with specified elevated temperature properties

### 1 Scope

**1.1** This part of ISO 9329 specifies the technical delivery conditions for seamless tubes of circular cross-section, made of unalloyed and alloyed steel with specified elevated temperature properties.

These tubes are intended for pressure purposes in cases when the material is also subjected to elevated temperatures, e.g. for the construction of steam generating equipment and for interconnecting pipework.

The requirements of appropriate international application standards and relevant national legal regulations shall be taken into account by the user. For boilers and pressure vessels, ISO/R 831 and ISO 5730 are available.

The following parts of ISO 9329 are now available or are being prepared:

- *Part 1: Unalloyed steels with specified room temperature properties* (partial revision of ISO 2604-2:1975).
- *Part 3: Unalloyed and alloyed steels with specified low temperature properties* (partial revision of ISO 2604-2:1975).
- *Part 4: Austenitic stainless steels* (partial revision of ISO 2604-2:1975).

#### NOTES

- 1 The English words "tube" and "pipe" are synonymous.

2 This part of ISO 9329 can also be used as a basis for the manufacture of tubes of non-circular section. In this case, the values quoted in this part of ISO 9329 for chemical analysis and mechanical properties are applicable, all other requirements are by agreement between the purchaser and the manufacturer.

**1.2** For the general technical delivery requirements, see ISO 404.

### 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 9329. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 9329 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 148:1983, *Steel — Charpy impact test (V-notch)*.

ISO 377-1:1989, *Selection and preparation of samples and test pieces of wrought steels — Part 1: Samples and test pieces for mechanical test*.

ISO 377-2:1989, *Selection and preparation of samples and test pieces of wrought steels — Part 2: Samples for the determination of the chemical composition*.

ISO 404:1992, *Steel and steel products — General technical delivery requirements*.