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(JISF)

Stainless steel pipes

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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 The Japan Iron and Steel Federation (JISF) 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 G 3459** : 1997 is replaced with this Standard.

This revision has been made based on **ISO 9330-6** : 1997 *Welded steel tubes for pressure purposes—Technical delivery conditions—Part 6 : Longitudinally welded austenitic stainless steel tubes* and **ISO 9329-4** : 1997 *Seamless steel tubes for pressure purposes—Technical delivery conditions—Part 4 : Austenitic stainless steels* for the purposes of making it easier to compare this Standard with International Standards; to prepare Japanese Industrial Standard conforming with International Standards; and to propose a draft of an International Standard which is based on Japanese Industrial Standard.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

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

Contents

Stainless steel pipes

Introduction In this revision, the addition of steel grades which have usage track records for hot water piping, the review to make the table of dimensions and mass of welded steel pipes agree with the actual condition, the modification of the value of chemical component P to be in a conformity with **JIS G 4304** and **JIS G 4305** and the alteration of number of specimens for the hydraulic test and non-destructive examination were made.

This Japanese Industrial Standard has been prepared based on each first edition of **ISO 9330-6** *Welded steel tubes for pressure purposes—Technical delivery conditions—Part 6 : Longitudinally welded austenitic stainless steel tubes* and **ISO 9329-4** *Seamless steel tubes for pressure purposes—Technical delivery conditions—Part 4 : Austenitic stainless steels* published in 1997 with modifying some technical contents.

Portions sidelined or underlined with dots are the matters modified from the original International Standards.

The list of modification with its explanation is given in annex 2 (informative).

1 Scope This Standard specifies the stainless steel pipes (hereafter referred to as "pipes") used for the piping for corrosion resistance, low temperature service, high temperature service, etc.

Remarks 1 The purchaser may designate in addition to the items specified in this text, by prior agreement with the manufacturer, part or all of the items in the special quality requirements specified in annex 1 (normative).

2 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**.

ISO 9330-6 : 1997 *Welded steel tubes for pressure purposes—Technical delivery conditions—Part 6 : Longitudinally welded austenitic stainless steel tubes* (MOD)

ISO 9329-4 : 1997 *Seamless steel tubes for pressure purposes—Technical delivery conditions—Part 4 : Austenitic stainless steels* (MOD)

2 Normative references The standards listed in attached table 1 contain provisions which, through reference in this Standard, constitute provisions of this Standard. If the indication of 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).

3 Classification and symbol Pipes shall be classified into 31 grades and their symbols shall be as given in table 1.

Table 1 Symbol of grade and heat treatment

Classification	Symbol of grade	Solution treatment °C	Classification	Symbol of grade	Solution treatment °C
Austenitic pipes	SUS304TP	1 010 min., rapid cooling	Austenitic pipes	SUS321TP	920 min., rapid cooling
	SUS304HTP	1 040 min., rapid cooling		SUS321HTP	Cold-finished 1 095 min, rapid cooling
	SUS304LTP	1 010 min., rapid cooling			Hot-finished 1 050 min, rapid cooling
	SUS309TP	1 030 min., rapid cooling		SUS347TP	980 min., rapid cooling
	SUS309STP	1 030 min., rapid cooling		SUS347HTP	Cold-finished 1 095 min, rapid cooling
	SUS310TP	1 030 min., rapid cooling			Hot-finished 1 050 min, rapid cooling
	SUS310STP	1 030 min., rapid cooling	Austenitic ferritic pipes	SUS329J1TP	950 min., rapid cooling
	SUS315J1TP	1 010 min., rapid cooling		SUS329J3LTP	950 min., rapid cooling
	SUS315J2TP	1 010 min., rapid cooling			
	SUS316TP	1 010 min., rapid cooling		SUS329J4LTP	950 min., rapid cooling
	SUS316HTP	1 040 min., rapid cooling	Ferritic pipes	SUS405TP	Annealing 700 min., air cooling or slow cooling
	SUS316LTP	1 010 min., rapid cooling		SUS409LTP	Annealing 700 min., air cooling or slow cooling
	SUS316TiTP	920 min., rapid cooling		SUS430TP	Annealing 700 min., air cooling or slow cooling
	SUS317TP	1 010 min., rapid cooling		SUS430LXTP	Annealing 700 min., air cooling or slow cooling
	SUS317LTP	1 010 min., rapid cooling		SUS430J1LTP	Annealing 720 min., air cooling or slow cooling
	SUS836LTP	1 030 min., rapid cooling		SUS436LTP	Annealing 720 min., air cooling or slow cooling
	SUS890LTP	1 030 min., rapid cooling		SUS444TP	Annealing 700 min., air cooling or slow cooling

Remarks : For the pipes of SUS321TP, SUS316TiTP and SUS347TP, stabilizing treatment may be specified. In this case, the temperature of heat treatment shall be from 850 °C to 930 °C.