

# JAPANESE INDUSTRIAL STANDARD

Translated and Published by Japanese Standards Association

JIS B 2313: 2024

(JPFA/JSA)

Steel plate butt-welding pipe fittings

**ICS** 23.040.40

Reference number: JIS B 2313: 2024 (E)

B 2313: 2024

Date of Establishment: 1982-10-15

Date of Revision: 2024-01-22

Date of Public Notice in Official Gazette: 2024-01-22

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

JIS B 2313: 2024, First English edition published in 2024-05

Translated and published by: Japanese Standards Association Mita Avanti, 3-11-28, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

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

© JSA 2024

All rights reserved. Unless otherwise specified, 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.

Printed in Japan HN

## Contents

|  |   | Page                                   |
|--|---|--|
| Intro  | duction ·····   | ··· 1                                  |
| 1 8  | Scope   | ··· 1                                  |
| 2  | Normative references  | $\cdots 2$                             |
| 3  | Terms and definitions ·····   | 3                                      |
| 4  | Classification ····   | 3                                      |
| 5  | Materials   | 5                                      |
| 6  | Manufacturing method ·····  | 8                                      |
| 7  | Chemical composition ·····  | ·10                                    |
| 8<br>8.1<br>8.2<br>8.3                                     | Performance  Mechanical properties  Pressure resistance  Non-destructive test characteristics of welds  | ·10<br>·10                             |
| 9  | Shape and dimensions ·····  | 11                                     |
| 10   | Appearance  | 12                                     |
| 11   | Supplementary quality requirements  | 12                                     |
| 12<br>12.1<br>12.2<br>12.3<br>12.4                         | Tests Chemical analysis Mechanical tests Pressure resistance test Non-destructive test of welds   | ·12<br>·12<br>·13                      |
| 13<br>13.1<br>13.2<br>13.3<br>13.4<br>13.5<br>13.6<br>13.7 | Inspection Types of inspection and inspection items Chemical analysis Inspection on mechanical properties Inspection on pressure resistance Inspection on shape and dimensions Inspection on appearance Non-destructive inspection on welds | ·13<br>·14<br>·14<br>·14<br>·14<br>·14 |
| 14   | Designation of products ·····   | 15                                     |
| 15   | Marking ····  | 16                                     |
| 16   | Report ····   | 16                                     |
| Anne   | x A (normative) Shape and dimensions of nine fittings   | 17                                     |

## B 2313: 2024

| Annex JA (normative)   | Supplementary quality requirements $\cdots 30$  |
|------------------------|---|
| Annex JB (normative)   | Pipe fittings of special shapes · · · · · · 35  |
| Annex JC (informative) | Shapes and dimensions of special bevel ends · · · · · · 41                                      |
| Annex JD (informative) | Marking and report for necked pipe fittings with necks different at each end ················43 |
| Annex JE (informative) | Comparison table between JIS and corresponding International Standards45                        |

#### Foreword

This Japanese Industrial Standard has been 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 Pipe Fittings Association (JPFA)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (JIS B 2313: 2015), which has been technically revised.

However, **JIS B 2313**: 2015 may be applied in the **JIS** mark certification based on the relevant provisions of Article 30, paragraph (1), etc. of the Industrial Standardization Act until 21 January 2025.

This **JIS** document is protected by the Copyright Act.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, published patent application or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, published patent application or utility model rights.

Blank

# Steel plate butt-welding pipe fittings

JIS B 2313: 2024

#### Introduction

This Japanese Industrial Standard has been prepared based on **ISO 3419**: 1981, Edition 2, and **ISO 5251**: 1981, Edition 1, with some modifications of the technical contents.

Annexes JA to JD are unique to **JIS** and not given in the corresponding International Standards. The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standards. A list of modifications with the explanations is given in Annex JE.

#### 1 Scope

This Standard specifies requirements for pipe fittings with longitudinal seam that are mainly used by being butt-welded to pressure service pipings <sup>1)</sup>, high temperature service pipings <sup>2)</sup>, alloy steel pipings <sup>3)</sup>, stainless steel pipings <sup>4)</sup> and low temperature service pipings <sup>5)</sup> (hereafter referred to as pipe fittings).

- NOTE 1 This Standard covers pipe fittings that are manufactured from welded steel pipes.
- NOTE 2 The weld joint efficiency of a pipe fitting is considered according to the design conditions specified by the purchaser.
- NOTE 3 The International Standards corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 3419: 1981 Non-alloy and alloy steel butt-welding fittings

ISO 5251: 1981 Stainless steel butt-welding fittings (Overall evaluation: MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standards and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

- Note 1) Pipings using carbon steel pipes for pressure service specified in **JIS G** 3454.
- Note <sup>2)</sup> Pipings using carbon steel pipes for high temperature service specified in **JIS G 3456**.
- Note 3) Pipings using alloy steel pipes specified in **JIS G 3458**.
- Note 4) Pipings using stainless steel pipes specified in **JIS G 3459** and **JIS G 3468**.
- Note 5) Pipings using steel pipes for low temperature service specified in **JIS G 3460**.