

JAPANESE INDUSTRIAL STANDARD

Translated and Published by Japanese Standards Association

 $JIS \ G \ 3474$: 2024

(JISF)

High strength steel tubes for steel tower

ICS 29.240.01;77.140.75;91.080.13

Reference number: JIS G 3474: 2024 (E)

G 3474: 2024

Date of Establishment: 1988-10-01

Date of Revision: 2024-11-20

Date of Public Notice in Official Gazette: 2024-11-20

Developed by: The Japan Iron and Steel Federation

Investigated by: The Japan Iron and Steel Federation,

Standardization Center

JIS G 3474: 2024, First English edition published in 2025-04

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 2025

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

	F	age
1	Scope	1
2	Normative references · · · · · · · · · · · · · · · · · · ·	1
3	Terms and definitions ·····	1
4	Symbol of grade and applicable wall thickness ······	1
5	Manufacturing method ······	
6	Chemical composition ······	
7 7.1 7.2	Weldability General requirements for weldability Carbon equivalent	3
8 8.1 8.2 8.3 8.4	Mechanical properties Tensile strength, yield point or proof stress, and elongation Flattening resistance Tensile strength of weld Charpy absorbed energy	3 3 3
9 9.1 9.2	Dimensions, unit mass and dimensional tolerances Dimensions and unit mass Dimensional tolerances	5
10	Appearance	7
11	Supplementary quality requirements	8
12 12.1 12.2	Tests Chemical analysis Mechanical tests	8
13 13.1 13.2	Inspection and reinspection 1 Inspection 1 Reinspection 1	1
14	Marking ·····	1
15	Information to be supplied by the purchaser ······1	2
16	Report ·····	2
Anne	x A (normative) Supplementary quality requirements ······1	.3

Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry based on the provision of Article 14, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act in response to a proposal for revision of Japanese Industrial Standard with a draft being attached, submitted by The Japan Iron and Steel Federation (JISF), an accredited standards development organization. This edition replaces the previous edition (JIS G 3474: 2021), which has been technically revised.

However, **JIS G 3474**: 2021 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 19 November 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 is not responsible for identifying any of such patent rights, published patent application or utility model rights.

High strength steel tubes for steel tower

JIS G 3474: 2024

1 Scope

This Japanese Industrial Standard specifies requirements for the high tensile strength steel tubes principally used for transmission steel towers (hereafter referred to as tubes).

NOTE This Standard generally applies to tubes of outside diameter 139.8 mm to 1 117.6 mm (see 9.1).

2 Normative references

Part or all of the provisions of the following standards, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

$\rm JIS~G~0202$	Glossary of terms used in iron and steel (Testing)
$\rm JIS~G~0203$	Glossary of terms used in iron and steel (Products and quality)
$\rm JIS~G~0320$	Standard test method for heat analysis of steel products
$\rm JIS~G~0321$	Product analysis and its tolerance for wrought steel
JIS G 0404	Steel and steel products — General technical delivery requirements
JIS G 0415	Steel and steel products — Inspection documents
JIS Z 2241	Metallic materials — Tensile testing — Method of test at room temperature
JIS Z 2242	Method for Charpy pendulum impact test of metallic materials
JIS Z 3121	Methods of tensile test for butt welded joints
JIS Z 8401	Rounding of numbers

3 Terms and definitions

For the purpose of this Standard, the terms and definitions given in **JIS G 0202** and **JIS G 0203** apply.

4 Symbol of grade and applicable wall thickness

This Standard covers tubes of one steel grade. The symbol of grade and applicable wall thickness are given in Table 1.