



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS G 3474 : 2021

(JISF)

High strength steel tubes for steel tower

Date of Establishment: 1988-10-01

Date of Revision: 2021-05-20

Date of Public Notice in Official Gazette: 2021-05-20

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

Technical Committee on Metal and Inorganic Materials

JIS G 3474 : 2021, First English edition published in 2021-12

Translated and published by: Japanese Standards Association
Mita MT Building, 3-13-12, 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 2021

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
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbol of grade and applicable wall thickness	1
5 Manufacturing method	2
6 Chemical composition	2
7 Carbon equivalent	2
8 Mechanical properties	3
8.1 Tensile strength, yield point or proof stress, and elongation	3
8.2 Flattening resistance	3
8.3 Tensile strength of weld	3
8.4 Charpy absorbed energy	4
9 Dimensions, unit mass and dimensional tolerances	4
9.1 Dimensions and unit mass	4
9.2 Dimensional tolerances	5
10 Appearance	6
11 Supplementary quality requirement	7
12 Tests	7
12.1 Chemical analysis	7
12.2 Mechanical tests	7
13 Inspection and reinspection	10
13.1 Inspection	10
13.2 Reinspection	10
14 Marking	10
15 Report	11
Annex A (normative) Supplementary quality requirement	12

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 The Japan Iron and Steel Federation (JISF) 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 G 3474:2016**), which has been technically revised.

However, **JIS G 3474: 2016** 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 May 2022.

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.

High strength steel tubes for steel tower

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.

JIS G 0202 *Glossary of terms used in iron and steel (Testing)*

JIS G 0203 *Glossary of terms used in iron and steel (Products and quality)*

JIS G 0320 *Standard test method for heat analysis of steel products*

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. Its symbol and applicable wall thickness are shown in Table 1.