

# JIS

JAPANESE  
INDUSTRIAL  
STANDARD

Translated and Published by  
Japanese Standards Association

---

---

**JIS G 3455** : 2016

(JISF)

**Carbon steel pipes for high  
pressure service**

---

ICS 23.040.10;77.140.10;77.140.75

Reference number : **JIS G 3455 : 2016 (E)**

Date of Establishment: 1962-03-01

Date of Revision: 2016-03-22

Date of Public Notice in Official Gazette: 2016-03-22

Investigated by: Japanese Industrial Standards Committee  
Standards Board for ISO area  
Technical Committee on Metal and Inorganic  
Materials

---

JIS G 3455:2016, First English edition published in 2016-08

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 2016

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

AT

## Contents

	Page
Introduction.....	1
1 Scope.....	1
2 Normative references .....	1
3 Classification and symbols .....	2
4 Manufacturing method .....	2
5 Chemical composition .....	3
6 Mechanical properties .....	3
6.1 Tensile strength, yield point or proof stress, and elongation .....	3
6.2 Flattening resistance .....	4
6.3 Bendability .....	5
7 Hydrostatic test characteristics or nondestructive test characteristics .....	5
8 Dimensions, mass and dimensional tolerances .....	6
8.1 Dimensions and unit mass .....	6
8.2 Dimensional tolerances .....	8
9 Appearance .....	8
10 Supplementary quality requirements .....	9
11 Tests .....	9
11.1 Chemical analysis .....	9
11.2 Mechanical tests .....	9
11.3 Hydrostatic test or nondestructive test.....	10
12 Inspection and reinspection .....	11
12.1 Inspection.....	11
12.2 Reinspection .....	11
13 Marking.....	11
14 Report .....	12
Annex JA (normative) Supplementary quality requirements .....	13
Annex JB (informative) Comparison table between JIS and corresponding International Standard .....	16

## 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 3455**:2012 is replaced with this Standard.

However, **JIS G 3455**:2012 may be applied in the **JIS** mark certification based on the relevant provisions of Article 19 Clause 1, etc. of the Industrial Standardization Law until March 21, 2017.

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

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

# Carbon steel pipes for high pressure service

## Introduction

This Japanese Industrial Standard has been prepared based on the first edition of **ISO 9329-2** published in 1997 with some modifications of the technical contents.

Annex JA provides supplementary quality requirements which the purchaser can specify upon agreement with the manufacturer. The portions given sidelines or dotted underlines are the matters in which the contents of the corresponding International Standard have been modified. A list of modifications with the explanations is given in Annex JB.

## 1 Scope

This Standard specifies the carbon steel pipes (hereafter referred to as “pipes”) used for high pressure service at temperatures 350 °C or lower mainly used for machine parts.

NOTE 1 The dimensional range covered by this Standard is generally outside diameter 10.5 mm (nominal diameter 6A or 1/8B) to 660.4 mm (nominal diameter 650A or 26B).

NOTE 2 The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 9329-2:1997 *Seamless steel tubes for pressure purposes—Technical delivery conditions—Part 2: Unalloyed and alloyed steels with specified elevated temperature properties* (MOD)

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 21-1**.

## 2 Normative references

The following standards contain provisions which, 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 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 G 0567 *Method of elevated temperature tensile test for steels and heat-resisting alloys*

JIS G 0582 *Automated ultrasonic examination of steel pipes and tubes*

JIS G 0583 *Automated eddy current examination of steel pipes and tubes*