

JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS B 1054-3 : 2013

(ISO 3506-3 : 2009)

(JFRI/JSA)

**Mechanical properties of corrosion-resistant stainless steel fasteners—
Part 3: Set screws and similar fasteners not under tensile stress**

ICS 21.060.10

Reference number : **JIS B 1054-3 : 2013 (E)**

Date of Establishment: 2001-01-20

Date of Revision: 2013-05-20

Date of Public Notice in Official Gazette: 2013-05-20

Investigated by: Japanese Industrial Standards Committee
Standards Board

Technical Committee on Machine Elements

JIS B 1054-3:2013, First English edition published in 2013-09

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

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

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Printed in Japan

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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 Research Institute for Screw Threads and Fasteners (JFRI)/Japanese Standards Association (JSA) 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 B 1054-3**:2001 is replaced with this Standard.

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JIS B 1054 series consists of the following 4 parts under the general title “*Mechanical properties of corrosion-resistant stainless steel fasteners*”:

Part 1: Bolts, screws and studs

Part 2: Nuts

Part 3: Set screws and similar fasteners not under tensile stress

Part 4: Tapping screws

Mechanical properties of corrosion-resistant stainless steel fasteners— Part 3: Set screws and similar fasteners not under tensile stress

Introduction

This Japanese Industrial Standard has been prepared based on the second edition of **ISO 3506-3** published in 2009 without any modifications of the technical contents.

The portions with dotted underlines and Annex JA in this Standard are not contained in the corresponding International Standard.

1 Scope

This Standard specifies the mechanical properties of set screws and similar fasteners not under tensile stress made of austenitic stainless steel, when tested over an ambient temperature range of 10 °C to 35 °C. Properties vary at higher or lower temperatures.

This Standard applies to set screws and similar fasteners:

- with nominal thread diameter $1.6 \text{ mm} \leq d \leq 24 \text{ mm}$;
- of **ISO** general purpose metric threads based on **JIS B 0205-1** with diameters and pitches in accordance with **JIS B 0205-2** and **JIS B 0205-3**;
- of any shape.

It does not apply to screws with special properties, such as weldability.

NOTE : The designation system of this Standard can be used for sizes outside the limits given in this clause (e.g. $d > 24 \text{ mm}$), provided that all applicable mechanical and physical requirements of the hardness classes are met.

This Standard does not define corrosion or oxidation resistance in particular environments.

The aim of this Standard is the classification of corrosion-resistant stainless steel fasteners into hardness classes.

Corrosion and oxidation performances and mechanical properties for use at elevated or sub-zero temperatures can be agreed on between the user and the manufacturer in each particular case. Annex D shows how the risk of intergranular corrosion at elevated temperatures depends on the carbon content.

All austenitic stainless steel fasteners are normally non-magnetic in the annealed condition; after cold working, some magnetic properties can be evident (see Annex E).

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

ISO 3506-3:2009 *Mechanical properties of corrosion-resistant stainless steel fasteners—Part 3: Set screws and similar fasteners not under tensile stress* (IDT)