JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS B 1702-3 : 2020

(JGMA/JSA)

Cylindrical gears — System of tolerance classification — Part 3: Definitions and allowable values of deviations relevant to corresponding gear-tooth flanks and radial-composite deviations of injection-molded plastic gears

ICS 21.200
Reference number : JIS B 1702-3 : 2020 (E)

Date of Establishment: 2008-04-20

Date of Revision: 2020-10-20

Date of Public Notice in Official Gazette: 2020-10-20

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

JIS B 1702-3 : 2020, First English edition published in 2021-04

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.

Printed in Japan KK/HN

Contents

Page

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 Gear Manufacturers Association (JGMA)/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 1702-3**:2008), which has been technically revised.

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.

JIS B 1702 series consists of the following 3 parts:

JIS B 1702-1 *Cylindrical gears — ISO system of flank tolerance classification — Part 1 : Definitions and allowable values of deviations relevant to flanks of gear teeth*

JIS B 1702-2 *Cylindrical gears — ISO system of accuracy — Part 2 : Definitions and allowable values of deviations relevant to radial composite deviations and runout information*

JIS B 1702-3 *Cylindrical gears — System of tolerance classification — Part 3: Definitions and allowable values of deviations relevant to corresponding gear-tooth flanks and radial-composite deviations of injection-molded plastic gears*

Cylindrical gears — System of tolerance classification — Part 3 : Definitions and allowable values of deviations relevant to corresponding gear-tooth flanks and radial-composite deviations of injection-molded plastic gears

1 Scope

This Japanese Industrial Standard specifies the tolerance classification of injection-molded plastic cylindrical involute gears (hereafter referred to as gears), the terms and definitions relevant to flank deviations and radial composite deviations of gears, and the flank tolerance classification system and radial composite tolerance classification system of gears.

These tolerances are applicable to the following ranges :

a) normal module (m_n) 0.1 mm or over up to and including 2.0 mm;

b) reference diameter (d) 1 mm or over up to and including 280 mm;

c) number of teeth (z) 3 or more;

d) helix angle (β) 45° or less;

e) facewidth (b) 0.2 mm or over up to and including 40 mm.

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 B 0102-1 *Vocabulary of gear terms — Part 1 : Definitions related to geometry*

JIS B 0121 *International gear notation — Symbols for geometrical data*

ISO 21771 *Gears — Cylindrical involute gears and gear pairs — Concepts and geometry*

3 Terms and definitions

For the purpose of this Standard, the following terms and definitions, and those given in **JIS B 0102-1** and **ISO 21771** apply.

NOTE Some of the symbols and terminology contained in this Standard may differ from those used in other standards and documents.

3.1

General

3.1.1