



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS B 1758 : 2013

(JGMA/AIST)

**Acceptance tests for gear measuring
instruments**

ICS 17.040.30;21.200

Reference number : **JIS B 1785 : 2013 (E)**

Date of Establishment: 2013-02-20

Date of Public Notice in Official Gazette: 2013-02-20

Investigated by: Japanese Industrial Standards Committee
Standards Board

Technical Committee on Machine Elements

JIS B 1758:2013, First English edition published in 2014-05

Translated and published by: Japanese Standards Association
Mita MT Building, 3-13-12, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

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Printed in Japan

KA/AT

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Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal for establishment of Japanese Industrial Standard submitted by Japan Gear Manufacturers Association (JGMA)/National Institute of Advanced Industrial Science and Technology (AIST) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

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Acceptance tests for gear measuring instruments

1 Scope

This Japanese Industrial Standard specifies acceptance tests to verify whether performances of gear measuring instruments conform to the specifications declared by the manufacturer thereof (hereafter referred to as “manufacturer”) or not using artifacts for test. Acceptance tests specified in this Standard shall apply to the tooth form measurement, helix measurement and pitch measurement of gear measuring instruments.

This Standard is applicable to periodic tests to verify performances of gear measuring instruments by the periodic flank measurement.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. For standards with the year indication, only the editions of the indicated year shall be applied and the revisions (including amendments) made thereafter shall not be applied. For those without the indication of the year, the most recent edition (including amendments) shall be applied.

JIS B 0102:1999 *Vocabulary of gear terms—Definitions related to geometry*

JIS B 1757-1 *Evaluation of instruments for the measurement of individual gears—Part 1: Method by gear shape artifacts*

JIS B 1757-2 *Evaluation of instruments for the measurement of individual gears—Part 2: Tooth form measurement using sphere or cylinder artifacts*

JIS B 1757-3 *Evaluation of instruments for the measurement of individual gears—Part 3: Helix measurement using plane artifacts*

JIS B 1757-4 *Evaluation of instruments for the measurement of individual gears—Part 4: Pitch measurement using sphere artifacts*

JIS Z 8103 *Glossary of terms used in measurement*

3 Terms and definitions

For the purposes of this Standard, the terms and definitions given in **JIS B 0102:1999** and **JIS Z 8103** together with the following apply.

3.1 artifact for test

basis for the evaluation of flank measurement accuracy used in acceptance tests, etc. of gear measuring instruments

NOTE : There are such gear measuring instruments shown below. See **JIS B 1757-1** for details.

- a) Gear shape artifact
- b) Involute artifact
- c) Helix artifact