



JAPANESE
INDUSTRIAL
STANDARD

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Japanese Standards Association

JIS T 0111-1 : 1997

(ISO 10328-1 : 1996)

(Reaffirmed : 2003)

**Prosthetics – Structural testing
of lower-limb prostheses –
Part 1 : Test configurations**

ICS 11. 040. 40

Descriptors : artificial limbs, artificial organs, legs, mechanical testing, strength of materials, medical equipment

Reference number : JIS T 0111-1 : 1997 (E)

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Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of International Trade and Industry, through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law:

JIS T 0111 consists of the following 8 parts under the general title

Prosthetics — Structural testing of lower-limb prostheses:

- *Part 1 : Test configurations*
- *Part 2 : Test samples*
- *Part 3 : Principal structural tests*
- *Part 4 : Loading parameters of principal structural tests*
- *Part 5 : Supplementary structural tests*
- *Part 6 : Loading parameters of supplementary structural tests*
- *Part 7 : Test submission document*
- *Part 8 : Test report*

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Divisional Council on Medical and Safety

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

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Prosthetics—Structural testing of lower-limb prostheses

—Part 1 : Test configurations

Introduction This Japanese Industrial Standard has been prepared based on the first edition of ISO 10328-1, *Prosthetics—Structural testing of lower-limb prostheses—Part 1 : Test configurations* published in 1996 without modifying the technical contents.

1 Scope JIS T 0111 specifies procedures for static and cyclic strength tests of lower-limb prostheses where, with one exception, compound loadings are produced by the application of a single test force. The compound loads in the test sample relate to the peak values of the components of loading which normally occur at different instants during the stance phase of walking.

The tests in JIS T 0111 apply to trans-tibial (below-knee), knee-disarticulation and trans-femoral (above-knee) prostheses.

Remarks : The tests may be performed on complete structures, on partial structures, or on individual components.

Part 1* of JIS T 0111 specifies the test configurations by defining the following.

- the coordinate systems;
- the location of a test sample within each of the coordinate systems;
- the position of the line of application of the test force within each of the coordinate systems.

Note* : Parts 1, 2, 3, 4, 5, 6, 7, 8 of JIS T 0111 are referred to as JIS T 0111-1, JIS T 0111-2, JIS T 0111-3, JIS T 0111-4, JIS T 0111-5, JIS T 0111-6, JIS T 0111-7 and JIS T 0111-8, respectively.

2 Normative references The normative references of this part of JIS T 0111 are shown below:

JIS T 0101 : 1997 *Glossary of terms used in prosthetics and orthotics*

Remarks : ISO 8549-1 : 1989 *Prosthetics and orthotics—Vocabulary—Part 1 : General terms for external limb prostheses and external orthoses* is equivalent to the said standard.

JIS T 0111-2 : 1997 *Prosthetics—Structural testing of lower-limb prostheses—Part 2 : Test samples*