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**Quality characteristics of products—
General rules for determination of
specific values**

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**Quality characteristics of products—
General rules for determination of specific values**

1 Scope This Japanese Industrial Standard specifies the general rules for the determination of the specific values of the quality characteristics of outgoing goods ⁽¹⁾ by considering the required condition and economics.

Note ⁽¹⁾ Final products or semi-finished products manufactured by a certain means or through processing for the purpose of commercial dealings.

Remarks 1 The specific values of individual product are shown by both the maximum allowable limit (upper specification limit) and the minimum allowable limit (lower specification limit), specified either by bilateral limits, or by unilateral limit. The maximum allowable limit and the minimum allowable limit are called specification limits. The difference between the nominal value and the specification limits is called tolerance.

2 The specifications described in catalogs or operating instructions are not applicable in this Standard since these specifications are determined by the manufacturers considering the requests or demands of the purchaser and the general public.

3 The following standards are cited in this Standard:

JIS Z 8101 *Glossary of terms used in quality control*

JIS Z 8103 *Glossary of terms used in instrumentation*

2 Definitions and symbols For the purposes of this Standard, in addition to the definitions and symbols given in JIS Z 8101 and JIS Z 8103, the following definitions and symbols apply:

(1) **smaller-is-better characteristic** A characteristic without negative values, 0 is the ideal and the value is considered smaller the better. The specification is shown by the maximum allowable limit and symbol (Δ) is used (i.e., not more than Δ).

Examples: geometrical deviation (e.g., circularity, parallelism or positional deviation), sphericalness of a steel ball, or audible noise level.

(2) **nominal-is-best characteristic** A characteristic with a nominal value (m_0), upper tolerance ($+\Delta$) and lower tolerance ($-\Delta$). It is shown by ($m_0 \pm \Delta$). Many quality characteristics are of this type.

Remarks: Nominal-is-best is the characteristic when the nominal value is desirable in general.

Example: dimension (length or angle)