

ISO 2768 Quick Reference

Understand general tolerances – calculate specific values online

ISO 2768 defines general tolerances for characteristics that carry no individual tolerance indication on the drawing. It applies only when the drawing explicitly references it – and the interpretation depends on the part of the standard, the class and the edition. Specific limit deviations and limits of size come from the CSL online calculator, current and per nominal size.

Calculate ISO 2768 tolerances online



[csl-imt.ch/en/knowledge/
iso-2768-tolerance-tables](https://csl-imt.ch/en/knowledge/iso-2768-tolerance-tables)

01 · WHAT DOES ISO 2768 COVER?

ISO 2768-1

1989 edition · in force, revision under way

General tolerances for **linear and angular dimensions** and **broken edges** (chamfers, edge radii) without individual tolerance indications. Classes f, m, c, v.

ISO 2768-2

1989 · superseded by ISO 22081:2021

General geometrical tolerances for **form and location**: straightness, flatness, perpendicularity, symmetry, run-out. Classes H, K, L. Still common on existing drawings.

In Switzerland the standard is adopted as SN EN ISO 2768. Standard status: page 2.

02 · TOLERANCE CLASSES

f · m · c · v — dimensions per ISO 2768-1

- | | |
|-----------------|----------------------|
| f fine | m medium |
| c coarse | v very coarse |

The actually permissible deviation additionally depends on the nominal size range.

Calculate a specific value → QR code above

H · K · L — form and location per ISO 2768-2

- H** tightest class
- K** middle class
- L** coarsest class

Apply to straightness, flatness, perpendicularity, symmetry and run-out. For new drawings, ISO 22081 takes this role within the ISO GPS system.

03 · HOW TO READ AN INDICATION LIKE ISO 2768-MK

ISO 2768-mK

m → class for dimensions

General tolerance class "medium" for linear and angular dimensions per ISO 2768-1.

K → class for form and location

Class for general geometrical tolerances in the context of ISO 2768-2.

Important: The correct interpretation can depend on the drawing date, the standard reference and the edition used – context on page 2, in depth in the CSL article.

04 · EXAMPLE: NOMINAL SIZE 50 MM, CLASS M

1 RANGE

Determine the nominal size range: **over 30 up to 120 mm**

2 CLASS

Apply the class: **m (medium)**

3 TOLERANCE

Limit deviation per ISO 2768-1:1989: **±0.3 mm**

4 LIMITS OF SIZE

Upper / lower limit of size: **50.3 mm / 49.7 mm**

A didactic example. Other nominal sizes, classes and limits: **enter a nominal size and calculate directly** – QR code above.

05 · DATED AND UNDATED STANDARD REFERENCES

ISO 2768-1:1989 **dated**

The specifically cited edition applies. Later editions or successor standards do not automatically change the interpretation of this drawing.

ISO 2768-1 **undated**

Without an edition date, the interpretation can change when a standard is revised or replaced. For ISO 2768 this is exactly the point: part 2 has been replaced, and a revision of part 1 is under way.

In depth: [csl-imt.ch/en/knowledge/iso-2768-undated-reference](https://www.csl-imt.ch/en/knowledge/iso-2768-undated-reference) – why undated references are critical for existing drawings.

06 · STANDARD STATUS TODAY

ISO 2768-1:1989	In force. A revision (ISO/FDIS 2768) is under way; it narrows the scope considerably – only linear and angular size dimensions within the ISO GPS system.
ISO 2768-2:1989	Superseded by ISO 22081:2021. New drawings define general geometrical specifications via ISO 22081 – with an explicitly specified datum system.
Existing drawings	Do not automatically require reinterpretation. What matters: drawing date, edition and the type of reference (dated/undated). When in doubt, clarify before manufacturing or inspecting.

07 · COMMON MISTAKES

- ✗ Applying ISO 2768 indiscriminately to every characteristic
- ✗ Using the general tolerance although an individual tolerance is indicated – the individual indication takes precedence
- ✗ Ignoring the current standard status (part 2 is superseded)
- ✗ Treating dated and undated references the same
- ✗ Mixing up ISO 2768-1 and ISO 2768-2 (m is not a form and location class)
- ✗ Disregarding the drawing date and edition

08 · CAN I APPLY ISO 2768 HERE?

- 1 Individual tolerance on the characteristic?** Yes → it generally takes precedence. No → keep checking.
- 2** Is there a general ISO 2768 reference on the drawing?
- 3** Which part of the standard, which class? (e.g. m per part 1, K per part 2)
- 4** Is the reference dated or undated?
- 5** Is the interpretation unambiguous given age and standard status? **If not: have it reviewed by a specialist.**

09 · FURTHER CSL RESOURCES

ISO 2768 tolerance calculator

[csl-imt.ch/en/knowledge/iso-2768-tolerance-tables](https://www.csl-imt.ch/en/knowledge/iso-2768-tolerance-tables)

ISO 2768: undated references

[csl-imt.ch/en/knowledge/iso-2768-undated-reference](https://www.csl-imt.ch/en/knowledge/iso-2768-undated-reference)

Dimensional metrology & ISO GPS by CSL

[csl-imt.ch/en](https://www.csl-imt.ch/en)



Enter a nominal size and calculate the limits of size directly

Current values and limits of size in the CSL ISO 2768 calculator. Unclear technical drawing? CSL supports you with ISO GPS drawing reviews, specification clarification and industrial dimensional metrology.



Normative basis: ISO 2768-1:1989 · ISO 2768-2:1989 · ISO 22081:2021 · adopted in Switzerland as SN EN ISO 2768. Own explanations, no reproduction of protected standard texts. Version 1.0 · As of: August 2026 · Reviewed by: CSL Industrielle Messtechnik GmbH. Current information and calculator always online at www.csl-imt.ch/en.