
**Technical product documentation —
Indication of dimensions and
tolerances —**

**Part 5:
Dimensioning of structural metal work**

*Technique du produit documentation — Indication des cotes et
tolérances —*

Partie 5: Cotes des ouvrages de structure métallique



This document is a preview generated by ERS



COPYRIGHT PROTECTED DOCUMENT

© ISO 2018

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Basic requirements	2
5 Simplified dimensioning of structural metal work	2
6 Dimensioning of component profile	2
6.1 Profile code.....	2
6.2 Dimensioning samples.....	3
6.3 Profile dimensioning in drawing.....	7
7 Detail requirement	9
7.1 Typical component dimensioning.....	9
7.2 Dimensioning of bolts and rivets.....	12
7.3 Dimensioning of welding components.....	12
Annex A (normative) Profile graphical symbols	14
Annex B (informative) Dimensioning of weld components	16

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 10, *Technical product documentation*, Subcommittee SC 6, *Mechanical engineering documentation*.

A list of all parts in the ISO 129 series can be found on the ISO website.

Technical product documentation — Indication of dimensions and tolerances —

Part 5: Dimensioning of structural metal work

1 Scope

This document specifies the dimensioning of drawings for general use on structural metal work mainly consisting of plates, bars and profile sections.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 129-1, *Technical drawings — Indication of dimensions and tolerances Part 1: General principles*

ISO 129-4, *Technical product documentation (TPD) — Indication of dimensions and tolerances — Part 4: Dimensioning of shipbuilding drawings*

ISO 5261:1995, *Technical drawings — Simplified representation of bars and profile sections*

ISO 657-1, *Hot-rolled steel sections — Part 1: Equal-leg angles — Dimensions*

ISO 657-2, *Hot-rolled steel sections — Part 2: Unequal-leg angles — Dimensions*

ISO 657-16, *Hot-rolled steel sections — Part 16: Sloping flange column sections (metric series) — Dimensions and sectional properties*

ISO 657-18, *Hot-rolled steel sections — Part 18: L sections for shipbuilding (metric series) — Dimensions, sectional properties and tolerances*

ISO 657-21, *Hot-rolled steel sections — Part 21: T-sections with equal depth and flange width — Dimensions*

ISO 10209, *Technical product documentation — Vocabulary — Terms relating to technical drawings, product definition and related documentation*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10209, ISO 129-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

centroidal line

line passing through the centre of mass