

ASD-STAN
Standardization

EDITING GUIDELINE

RECORD OF REVISIONS

Issue N°	Date	Reasoning	Issued by	Approved by and date of approval
1	April 2024	Requirement for a comprehensive and centralised guideline for drafting EN documents, encompassing the unique requirements of various domains and the expertise of CEN editors.	ASD-STAN Secretariat	Technical Authority 10 May 2024

Contents

1 Scope

Further to the review of the SPM performed in 2022, certain clauses related to the editing rules have been omitted. This document specifies drafting rules of ASD-STAN deliverables (mainly in concert with CEN Internal Regulations Part 3 for drafting CEN deliverables).

This document will be reviewed periodically in line with business requirements to continuously improve the ASD-STAN drafting rules and editing guidelines.

This document is applicable to all individuals involved in the ASD-STAN standardization activities and processes providing support for drafting of ASD-STAN deliverables.

2 Referenced Documents

The publications listed below were used in the preparation of this document and contain background information relating to the subject addressed.

- ASD-STAN Standardization Process Manual (SPM)-version 13 (19 February 2024)
- CEN/CENELEC INTERNAL REGULATIONS
- CEN/CENELEC INTERNAL REGULATIONS Part 3: Principles and rules for the structure and drafting of CEN and CENELEC documents. Also named CEN IR3 throughout the document.
- CEN Simple Template for Drafting of Standards and Commenting Form
- The Quick Start Guide on the usage of CEN Simple Template

3 Rules for the structure and drafting of ASD-STAN publications

The structure and drafting of ASD-STAN deliverables (ASD-STAN prEN and TR) shall follow CEN-CENELEC Internal Regulations – Part 3.

This also includes the drawing of figures. Drawings/figures shall be delivered by the WG as tif. file format, according to the CEN requirements.

The .tif figures shall be provided:

- in the zip file separately from the document;
- with a dpi of 600 and with lzw compression; and
- with dimensions similar to the figure size in the document (100 % sizing)

The quality of figures can be checked with CEN "Image Quality Check" tool available on Projex Online, see below Figure 1

Figure 1 – CEN Image Quality Check Tool on Projex Online

CEN Simple Template shall be used for ASD-STAN publications, available via ASD-STAN web-page under Standardisation Documents and at CEN website further to this link (check Technical Work: list of templates). The template shall be used as early as possible in the development process and at the latest for NDB/CEN Enquiry ballot.

Additionally, the Quick Start Guide on the usage of CEN Simple Template can be also checked for more information on how the simple template should be used.

Checklist for writers and editors of documents can be found in Table A. 1 of Annex A.

The mandatory elements of an EN standard are:

- Title
- Table of contents
- European foreword
- Scope
- Normative references
- Terms and definitions
- Main body of the text (which can include figures, tables, formulas)

Optional elements of an EN standard are:

- Introduction
- Annexes
- Bibliography

4 Rules on Normative and Informative References

The Normative references clause lists those documents which are cited in the text in such a way that some or all of their content constitutes requirements of the document. The Normative references clause shall appear only once in each document. The Normative references clause shall be numbered as Clause 2. It shall not be subdivided. Referenced documents listed are not numbered.

Information on how these references apply is found in the place where they are cited in the document, and not in the Normative references clause.

The Normative references clause is a mandatory element, even if it contains no normative references. In the absence of Normative References, the following shall be stated:

"There are no normative references in this document".

Only references cited in the text in such a way that some or all of their content constitutes requirements of the document shall be listed in the Normative references clause. When citing other documents, avoid using potentially ambiguous expressions, where it is unclear whether a requirement or a recommendation is being expressed. If the informative reference or text is used, then the reference document shall be listed in the Bibliography. The Bibliography is an informative element. It shall not contain requirements, permissions or recommendations. The Bibliography is a conditional element. Its inclusion is dependent on whether informative references are present in the document.

How to identify Normative or informative references?
Normative = requirement (shall or according to)
Informative = statement (e.g. "see" or "refer to"), recommendation (should), permission (may), possibility (can).
Recommendations, permissions and possibilities are not only informative elements, but also provisions.

Normative references other than ISO, IEC, CEN, CENELEC, ETSI handled in ASD-STAN documents:
If the source is not available from ISO, IEC, CEN, CENELEC, ETSI, the source of supply is to be added as a footnote. A TC decision is not necessary. For footnote details refer to Annex D of this document.

Normative references referring to drafts prior ASD-STAN prEN publications are not permitted according to the ASD-STAN TA decision of 15/06/2023.

To maintain consistency in footnotes referencing the same source across multiple pages under the Normative references clause, utilize the Word function 'cross-reference'. This feature ensures that identical footnote content is referenced uniformly across various pages, preventing the creation of new footnotes with disparate numbering. The footnote under the normative references list should be positioned after the standard number and after the comma, followed by the standard title. Unnecessary repetition of footnotes should be avoided, e.g. related to the corresponding publisher, i.e. multiple ISO references (as the cross-reference function is not very stable in XML handling).

5 List of main changes in the revised standards

When a draft standard revises a previous edition, the significant change towards the revised edition needs to be identified - see more information on this page: 'Identification of significant technical changes in revised European Standards'.

For the publication of ASD-STAN prEN standard (in case of revision), a revision statement including any amendments and technical corrigenda and a list of changes with respect to previous edition shall be inserted in the Foreword, according to Simple Template.

"This document will supersede...."
"This document includes the following significant technical changes with respect to EN xxxxx:20xx."

The identification of significant technical changes should be included at the beginning of the revision of the document to facilitate the technical discussions at WG level.

In the past, the list of changes in respect to the previous edition was provided in the evolution form. This could still be used as informal document to facilitate the review. Now, when submitting the Committee Draft for the next stage, the changes shall already be listed in the foreword.

6 List of common errors identified by CEN in ASD-STAN documents

6.1 Verbal forms for expressing provisions: alignment with IR3

The users of the document shall be able to identify the requirements they are obliged to satisfy in order to claim conformance to a document. The users shall also be able to distinguish these requirements from other types of provision (recommendations, permissions, possibilities, and capabilities). To maintain consistency and clarity, adhere to the verbal forms outlined in Table 3 of the CEN IR3 (version 2022) when expressing requirements.

Therefore, write full sentences and use the following verbal forms:

- "**Shall**" or imperative to be used to express requirements ("must" not accepted, except of external constraints).
- **"Should"** to be used to express recommendations.
- **"May"** to be used to express permissions.
- **"Can" or "is possible"** to be used to express possibilities.
- Do not use "may not" to express prohibitions. Use "shall not" instead.

Examples and suggestions:
Instead of writing "According to EN XXXX" under a clause title, write a full sentence, e.g. "The dimensions shall be according to EN XXXX."
Instead of writing "See EN XXXX", write a full sentence, e.g. "Packaging shall be in accordance with EN XXXX."
Where a table lists references that are intended as normative, the table shall be referred to in a requirement.

Preferably, write clear instructions to apply the table in question.

Instead of writing "See Table XX", write e.g. "Optical fibre test methods shall be in accordance with Table XX."

Figure 2 – Verbal forms for expressing provisions for normative references

6.2 Identification of prohibited provisions in document elements

The "Foreword" and "Scope" shall not contain requirements, permissions or recommendations.
The "Introduction" shall not contain requirements.
Notes and examples shall not contain requirements (e.g. use of "shall") or any information considered indispensable for the use of the document, for example instructions (imperative mood), recommendations (e.g. use of "should") or permission (e.g. use of "may"). Notes and examples should be written as a statement of fact.
Make sure that no requirements specifying compliance with national/legal regulations are included in the document.

6.3 Incomplete Listing of Normative References in Clause 2

Example: Some normative references are not listed in Clause 2, but only mentioned in a footnote, e.g. "All parts quoted…", refer to Figure 3.

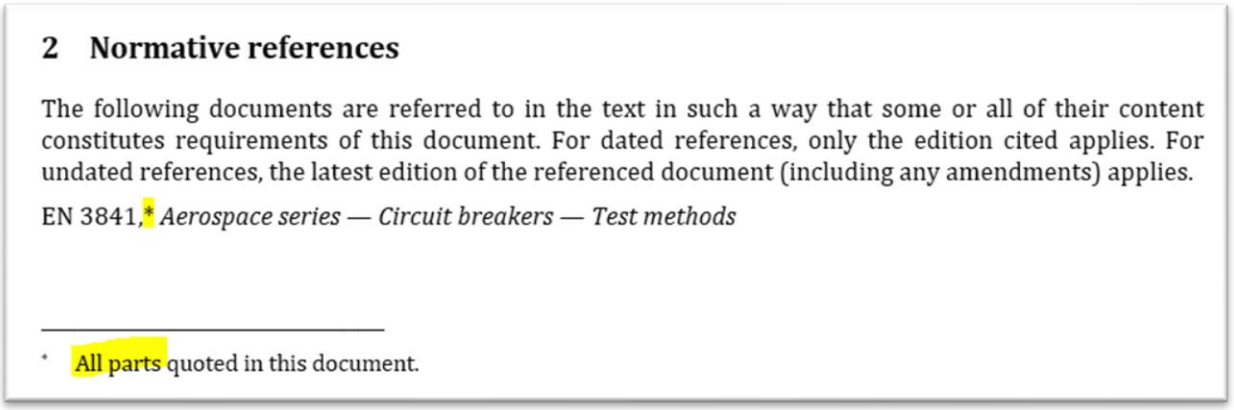


Figure 3 – Incomplete Listing of Normative References in Clause 2

Suggestion: Instead of using the footnote, list all normative references in Clause 2, including their titles and, where relevant, their year of publication.
In addition, avoid splitting references, e.g. as "EN 3841-" and "201" as they will not be recognised by XML as standard references if they are not written out in full.

Example and suggestion: Instead of this (Figure 4):

Table 2 — List of test methods

EN 3841-	Test
	Physical test methods
201	Visual inspection
202	Dimensions and masses

Figure 4 – Use of footnotes instead of full list of normative references

Write this (Figure 5):

Table 2 — List of test methods

Part of the EN 3841 series	Test
	Physical test methods
EN 3841-201	Visual inspection
EN 3841-202	Dimensions and masses

Figure 5 – List of all normative references in the series of standards

6.4 Overuse of footnotes in Clause 2 "Normative References"

When adding footnotes to references, refrain from duplicating information already in the text or evident from the reference itself. For example, avoid including a footnote for an ISO reference that simply states ISO as the publisher, see Figure 6. For EN, ISO and IEC references, a footnote is unnecessary. For further guidance refer to Annex D.

ISO 8843,[1] *Aircraft — Crimp-removable contacts for electrical connectors — Identification system*

SAE-AS22520,[2] *Crimping Tools, Wire Termination, General Specification For*

SAE-AS81969,[2] *Installing and Removal Tools, Connector Electrical Contact, General Specification for*

TR 4837,[3] *Aerospace series — Applicable crimping tools for electrical contact product standards EN 3155-003, EN 3155-008 and EN 3155-009 for contact size # 10 and barrel size # 10 only*

1 Published by: ISO International Organization for Standardization http://www.iso.ch/.

2 Published by: SAE International (US) https://www.sae.org/.

3 Published as ASD-STAN Technical Report at the date of publication of this standard by AeroSpace and Defence Industries Association of Europe – Standardization (ASD-STAN) (www.asd-stan.org).

Figure 6 – Overuse of footnotes in Clause 2 "Normative References"

6.5 XML-related issues

6.5.1. Segmentation of a Single Table into Multiple Tables with Identical Title and Header.

For example, if *parts 1* and *2* of Table 1 contain references to table footnotes, but *part 3* of Table 1 contains the footer with footnotes, the links to those footnote references will not be established. For these links to function properly, both the footnote references and the footer shall be within the same table.

Suggestion: Merge the tables into a single table with one title, one header, one body and one footer (if relevant). To achieve the preferred layout (so that the table breaks across several pages where desired), it is possible to insert page breaks where needed and repeat header rows on each page.

Tips:

- Select the table header, go to "Layout", and select "Repeat Header Rows".
- Click in the left (1st) field of the row of the table where you want to insert a break, go to "Paragraph", select "Line and Page Breaks" and tick "Page break before".

6.5.2. Presence of nested tables

CEN cannot generate XML from a Word document that contains a nested table (issue with material standards EN 4500 series), see below Figure 7.
Example: Table 1 in Figure 7 is separated into 11 tables with the same title and header, and it contains a nested table.

Table 1 — Technical requirements for lines 1 to 29, where appropriate *(2 of 11)*

Material standard line reference		Requirements	Frequency of testing	
No	Title		*Qualification*	Release
3	Method of melting *(continued)*	Recycling of scrap: See EN 2955. The categories and sub-categories of scrap which may be used by the manufacturer are given in the following table.	—	—

Scrap categories and sub-categories (see EN 2955)	Melting method which includes cold hearth	VAR-only melt method
1.1	allowed	allowed
1.2	allowed	allowed
2.1	allowed	allowed
2.2	allowed	allowed
3.1	allowed	allowed
3.2	allowed	allowed
4.1	allowed	allowed
4.2	allowed	allowed
4.3	allowed	allowed
4.4	allowed	not allowed
5.1	allowed	allowed
5.2	allowed	allowed
5.3	not allowed	not allowed
6.1	allowed	allowed
6.2	allowed	allowed
7.1	allowed	not allowed
7.2	allowed	not allowed

The manufacturer shall maintain a list of his approved scrap processors. The list shall indicate the categories of scrap for which the processors are approved.
Each order for scrap shall refer to EN 2955, specify the category and, if necessary, the sub-category of the scrap.

Figure 7 – Presence of nested tables

Suggestion to fix a nested table: Add an embedded table using the rows and columns of the existing table, as shown below in Figure 8.

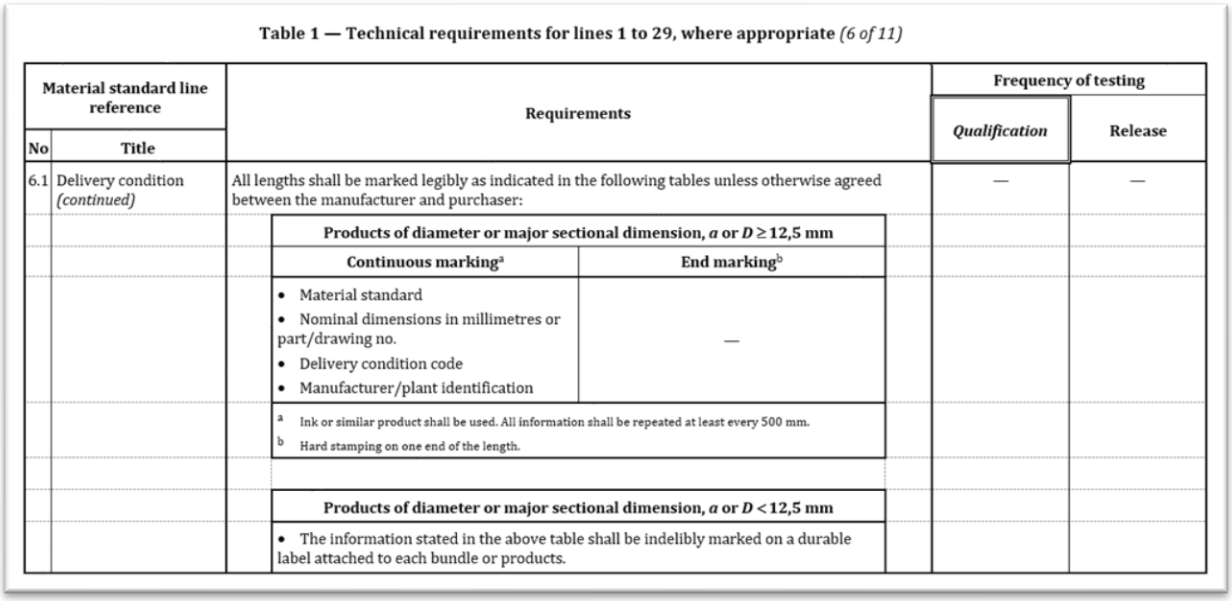


Table 1 — Technical requirements for lines 1 to 29, where appropriate *(6 of 11)*

Material standard line reference		Requirements	Frequency of testing	
No	Title		*Qualification*	Release
6.1	Delivery condition *(continued)*	All lengths shall be marked legibly as indicated in the following tables unless otherwise agreed between the manufacturer and purchaser:	—	—

Products of diameter or major sectional dimension, a or $D \geq 12{,}5$ mm	
Continuous marking[a]	**End marking**[b]
• Material standard • Nominal dimensions in millimetres or part/drawing no. • Delivery condition code • Manufacturer/plant identification	—
[a] Ink or similar product shall be used. All information shall be repeated at least every 500 mm. [b] Hard stamping on one end of the length.	

Products of diameter or major sectional dimension, a or $D < 12{,}5$ mm
• The information stated in the above table shall be indelibly marked on a durable label attached to each bundle or products.

Figure 8 – Embedded Table Integration: Resolving Nested Table Challenges Using Existing Rows and Columns

To ensure seamless compatibility with CEN IR Part 3 and XML requisites, the drafting rules in the tables of material standards produced by ASD-STAN can still be used aligning with the principles delineated in the EN 4500-001. Notably, Template 1, Template 2, and Template 3 serve as key references. To ensure compatibility with the XML, use the following:

- Single-Table Configuration: The Annex should feature only one table, maintaining consistency with the structured format specified and referred to in Templates 1/2/3 of EN 4500-001.
- Structured Completion: Populate the table in the Annex in adherence to the agreed-upon structure outlined in Templates 1/2/3 of EN 4500-001. Ensure meticulous completion to accurately reflect and organize the data.
- Flexibility for Blank Spaces: Address any blank spaces within the table by incorporating additional rows. This flexibility allows for the inclusion of comprehensive data without deviating from the established structural guidelines.

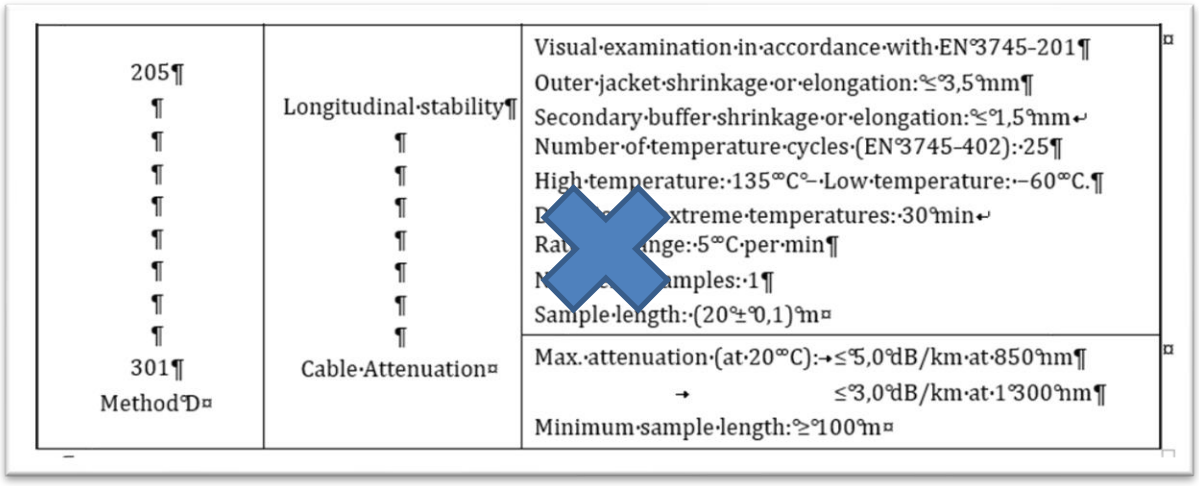
6.6 Text Alignment in Table Fields: Spaces, Tab Characters, and Empty Paragraphs

A layout created like below in Figure 9 cannot be reproduced in tables in XML (Figure 10). The alignment will be lost, i.e. the blank spaces will minimize, and the text will be misaligned.

Example:

The table looks appropriate in Word document but is not appropriate in XML:

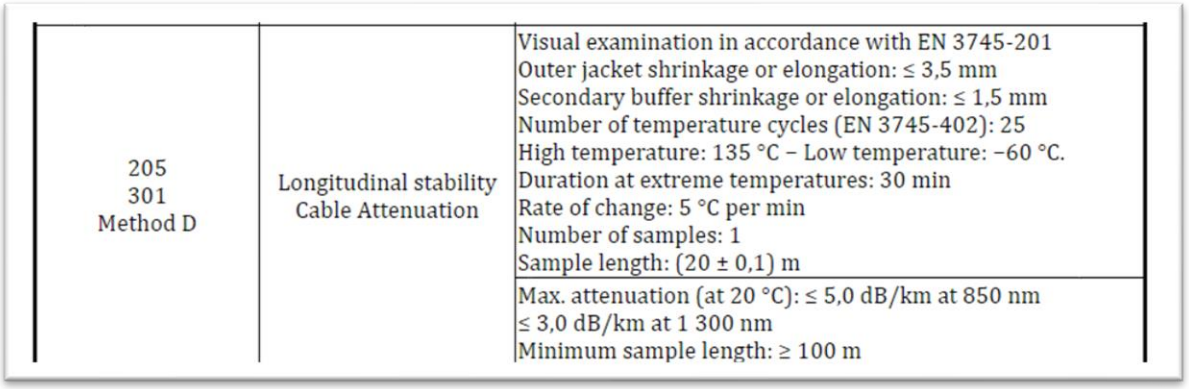
Word:



205¶ ¶ ¶ ¶ ¶ ¶ ¶ ¶ ¶ 301¶ Method·D¤	Longitudinal·stability¶ ¶ ¶ ¶ ¶ ¶ ¶ ¶ ¶ Cable·Attenuation¤	Visual·examination·in·accordance·with·EN·3745-201¶ Outer·jacket·shrinkage·or·elongation:·≤·3,5·mm¶ Secondary·buffer·shrinkage·or·elongation:·≤·1,5·mm↵ Number·of·temperature·cycles·(EN·3745-402):·25¶ High·temperature:·135·°C·–·Low·temperature:·–60·°C.¶ D… …xtreme·temperatures:·30·min↵ Rat… …nge:·5·°C·per·min¶ N… …mples:·1¶ Sample·length:·(20·±·0,1)·m¤ Max.·attenuation·(at·20·°C):·→·≤·5,0·dB/km·at·850·nm¶ → ≤·3,0·dB/km·at·1·300·nm¶ Minimum·sample·length:·≥·100·m¤

Figure 9 – Text Alignment in Table Fields : Spaces, Tab Characters, and Empty Paragraphs in Word

XML:



205 301 Method D	Longitudinal stability Cable Attenuation	Visual examination in accordance with EN 3745-201 Outer jacket shrinkage or elongation: ≤ 3,5 mm Secondary buffer shrinkage or elongation: ≤ 1,5 mm Number of temperature cycles (EN 3745-402): 25 High temperature: 135 °C – Low temperature: –60 °C. Duration at extreme temperatures: 30 min Rate of change: 5 °C per min Number of samples: 1 Sample length: (20 ± 0,1) m
		Max. attenuation (at 20 °C): ≤ 5,0 dB/km at 850 nm ≤ 3,0 dB/km at 1 300 nm Minimum sample length: ≥ 100 m

Figure 10 – Text Alignment in Table Fields : Spaces, Tab Characters, and Empty Paragraphs in XML

Suggestion: Instead of using spaces, tab characters and/or empty paragraph marks to align text in tables, use additional table rows and columns (with invisible borders) and table layout features in Word (Figure 11). With this approach, the table looks good both in Word (Figure 11) and in XML (Figure 12).

Word:

205¤	Longitudinal· stability¤	Visual·examination·in·accordance·with·EN·3745-201¶ Outer·jacket·shrinkage·or·elongation:·≤·3,5·mm¶ Secondary·buffer·shrinkage·or·elongation:·≤·1,5·mm Number·of·temperature·cycles·(EN·3745-402):·25¶ High·temperature:·135·°C·–·Low·temperature:·–60·°C.¶ Duration·at·extreme·temperatures:·30·min Rate·of·change:·5·°C·per·min¶ Number·of·samples:·1¶ Sample·length:·(20·±·0,1)·m¤	
301¶ Method·D¤	Cable·Attenuation¤	Max.·attenuation·(at·20·°C):¤	≤·5,0·dB/km·at·850·nm¶ ≤·3,0·dB/km·at·1·300·nm¤
		Minimum·sample·length:·≥·100·m¤	

Figure 11 – Using table layout features in Word to align text in tables

XML:

205	Longitudinal stability	Visual examination in accordance with EN 3745-201 Outer jacket shrinkage or elongation: ≤ 3,5 mm Secondary buffer shrinkage or elongation: ≤ 1,5 mm Number of temperature cycles (EN 3745-402): 25 High temperature: 135 °C – Low temperature: –60 °C. Duration at extreme temperatures: 30 min Rate of change: 5 °C per min Number of samples: 1 Sample length: (20 ± 0,1) m	
301 Method D	Cable Attenuation	Max. attenuation (at 20 °C):	≤ 5,0 dB/km at 850 nm ≤ 3,0 dB/km at 1 300 nm
		Minimum sample length: ≥ 100 m	

Figure 12 – Enhanced Table Alignment: Presentation in XML

7 Measurements and data in EN standards on metric system

All measurements and data in the ASD-STAN prEN and further EN standards shall be based on the metric system. If standards cover inch-based products, the metric values shall be used. If it is deemed useful to mention the inch series values, these shall be put within brackets as references only. The same applies to data such as pressure, weight, and other similar specifications.

For a Table, the symbol shall be only on the header (Figure 14) and not repeat in each row (Figure 13), see examples:

Do not use!

Diameter code No.	**Nominal shank diameter in mm**	**Thread[a] UNJF-3A modified (inch)**	A	B Ref. in mm	D		TD	H	r
					T, B or P code	**Other code**			
2	3,97	0,1640-32[b]	⌀8,17 ⌀7,77	7,11	⌀4,153 ⌀4,140	⌀4,153 ⌀4,128	⌀4,051 ⌀3,988	1,65 1,40	0,64 0,38
3	4,76	0,1900-32	⌀9,57 ⌀9,07	7,37	⌀4,813 ⌀4,800	⌀4,813 ⌀4,788	⌀4,673 ⌀4,597	1,88 1,63	0,64 0,38
3A	5,56	0,2160-28	⌀10,41 ⌀9,91	7,75	⌀5,542 ⌀5,529	⌀5,542 ⌀5,517	⌀5,334 ⌀5,258	2,06 1,80	0,64 0,38
4	6,35	0,2500-28	⌀11,17 ⌀10,54	8,13	⌀6,337 ⌀6,324	⌀6,337 ⌀6,312	⌀ 6,197 ⌀6,121	2,28 2,03	0,64 0,38

a Thread as per AS-8879 except diameter TD.

b Thread UNJC-3A.

Figure 13 – Improper Table Symbol Repetition

Use this format!

Diameter code No.	**Nominal shank diameter** mm	**Thread[a] UNJF-3A modified** inch	⌀ A mm	B Ref. mm	⌀ D		⌀ TD mm	H mm	r mm
					T, B or P code mm	**Other code** mm			
2	3,97	0,1640-32[b]	8,17 7,77	7,11	4,153 4,140	4,153 4,128	4,051 3,988	1,65 1,40	0,64 0,38
3	4,76	0,1900-32	9,57 9,07	7,37	4,813 4,800	4,813 4,788	4,673 4,597	1,88 1,63	0,64 0,38
3A	5,56	0,2160-28	10,41 9,91	7,75	5,542 5,529	5,542 5,517	5,334 5,258	2,06 1,80	0,64 0,38
4	6,35	0,2500-28	11,17 10,54	8,13	6,337 6,324	6,337 6,312	6,197 6,121	2,28 2,03	0,64 0,38

a Thread as per AS-8879 except diameter TD.

b Thread UNJC-3A.

Figure 14 – Correct Table Symbol Placement: Header-Only Representation

8 New Designation blocks in Aerospace Standards

ASD-STAN has concluded discussions on the modernization of designation blocks used in aerospace standards. Currently existing blocks (Figure 15) were found incompatible with CEN rules, lacking XML transformation compatibility, and requiring manual adaptation by the editing department for insertion as an image, making the editing process time-consuming.

As an agreed-upon resolution, a proposal for new designation blocks (Figure 16) has been established and shall be applied uniformly across all ASD-STAN domains, with the exception of D02[1]. This streamlined approach ensures compatibility with CEN rules and aims to enhance efficiency in the development of Aerospace EN standards.

EXAMPLE

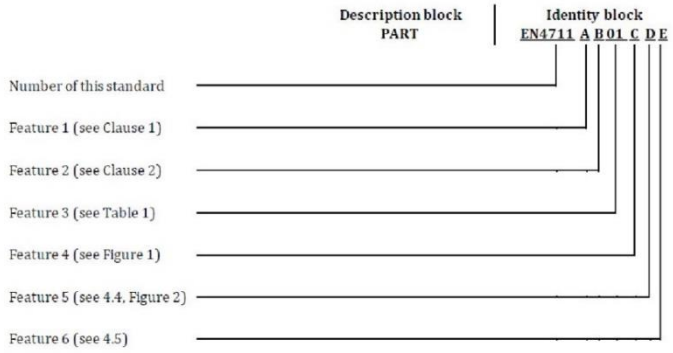


Figure 15 – Designation block used by Domain 02 only

EXAMPLE

PART EN 4711 A 01 B 02

In this designation, the elements have the following meaning:

A Feature 1 (see Table1)

01 Feature 2 (see Table 2)

B Feature 3 (see Table 3)

02 Feature 4 (see 4.1)

Figure 16 – New Designation block[2]

The new designation blocks are in line with ATA iSpec. 2200 “Information Standards for Aviation Maintenance”.

Code letters and key figures are used alternately (If only key figures are present, hyphens are used as separators.)

15 characters maximum (only numbers, capital letters and the special characters “-“ and “x” are permissible;[3])

[1] Based on feedback from Domain D02 "Electrical," it has been noted that the new designation blocks may not align entirely with the specific requirements of electrical standards (e.g. X Y Z not applicable for electrical standards). This matter will be thoroughly discussed at the D02 level to ensure the provision of applicable and aligned blocks tailored to the needs of the electrical domain.

[2] New designation block shall be formatted as a table with invisible borders for XML compatibility. Part number to be in bold and centered.

[3] Letters not allowed (except D02, as still in usage): I, O, Q, S; X, Y, Z (indicates oversize).

Advantages:

- XML compatible
- Easy to adapt

The utilization of new designation blocks is mandatory during the submission of the Committee Draft (CTD) to ASD-STAN for initiating the National Domain Ballot (NDB) and CEN Enquiry (CEN ENQ). After the ASD-STAN prEN publication no further changes are possible in designation blocks.

9 Drawings for external and internal threaded fasteners

This clause represents essential principles and best practices for accurately and effectively representing fasteners in technical drawings. This resource will help to produce precise and standardized drawings that ensure seamless integration and compliance within the fastener standards. Key elements of fastener drawings that will enhance precision, clarity, and consistency are described below. For some examples, refer to the Annex C of this document.

Non-SI-Unit	**SI-Unit**	**Conversion**	
in (inch)	mm	1 inch	= 25,4 mm

Detailed guidelines covering various aspects of **external threaded fasteners**:

- **General Nomenclature**: Adherence to ISO 225 for the standard nomenclature, ensuring consistency in terminology.
- **Relevant form- and positioning tolerances are:**
  - Protruding head: Perpendicularity to shank in accordance with ISO 7913 but with dedicated footnote:

    "1) shank length ≥ 1d: A is the unthreaded shank and can be located within a maximum length of 1d from the head-shank intersection;

    2) shank length < 1d or threaded to the head: A is the pitch diameter and can be located anywhere within a maximum length of 1d nearest the head-shank intersection;

    Where d = nominal thread diameter."

  - Straightness of shank shall be in accordance with ISO 7193.
  - Cotter-pin-hole tolerances in thread shall be defined with a footnote as follows:

    "The drill hole through the treaded section shall be manufactured with a maximum offset of 0,2 mm from the central axis."

  - Countersunk head: Run-out to shank in accordance with ISO 7913
  - Countersunk head: Footnote: Non-bearing surface of head to be manufactured straight or slight convex.

- **Surface roughness** shall be described in verbal form on top of the drawing as follows:
  "Bearing surfaces (head bearing area, shank, thread): Ra max = 0,8 µm
  All other surfaces: Ra max = 3,2 µm, refer to ASME B46.1"
- **Detail views** are expected for:
  - internal drive recesses,
  - internal threads,
  - head washer face areas,
  - lightening holes in heads.
- **Radius and chamfers** ≤ 0,5 mm shall be visualized in accordance with ISO 13715 (Figure 17):

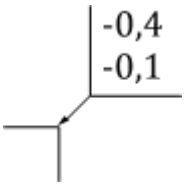


Figure 17 – Radius and chamfers visualized in accordance with ISO 13715

- Threads shall be defined in a table and not dimensioned in a drawing.

Detailed guidelines covering various aspects of **internal threaded fasteners**:

- **Surface roughness shall be described in verbal form on top of the drawing as follows:**

  "Nut Bearing surfaces: Ra max = 1,6 µm
  All other surfaces: Ra max = 6,3 µm, refer to ASME B46.1"

- **Form and positioning tolerances in accordance with sequence numbers in ISO 8788 shall be as follows:**
  - *1*
  - *2*
  - *3*
  - *10, remark: max tolerance shall be calculated as 50% of pitch diameter tolerance*
  - *12, remark: max tolerance of inner and outer diameter of shank nut shall be calculated as 50% of pitch diameter tolerance*
  - 13, to be defined further in next version
  - 14, to be defined further in next version
  - 15, to be defined further in next version

10 Technical Specification and Certificate of compliance/Conformity assessment

All documents containing requirements for products, processes, services, persons, systems and bodies shall be written in accordance with the "neutrality principle", such that conformity can be assessed by a manufacturer or supplier (first party), a user or purchaser (second party), or an independent body (third party)-see below extract from Clause 33 of the CEN-CENELEC Internal Regulations, Part 3: 2022.

"Document shall give all the necessary information allowing the evaluation of conformity of the subject of the standard to the requirements specified in the standard. Any other requirement, not pertaining to the subject of the standard itself, but to parties involved in manufacturing, testing or assessing it shall not be part of the standard. Such conformity assessment requirements shall be drafted in a separate document (e.g. a separate document in a series or a separate Part) provided that this document can be applied independently. For example, requirements specifying or implying that a particular party (1st, 2nd, 3rd) is to carry out the conformity assessment shall be drafted in a separate document".

EXAMPLE:

Part 1: Product requirements
Part 1 sets out the requirements for the product and can be applied independently with no reference to Part 2.
Part 2: Conformity assessment requirements
Part 2 sets out the requirements for assessing whether the given product conforms with the requirements specified in Part 1.

Product Standards: There shall be a technical specification mentioned.

Technical Specification: Text to be implemented for an EN 10204:2004 3.1 certificate on customer request: Clause "Certificate of compliance"
"At the request of the customer, the requirements of the document shall be confirmed by the manufacturer in an acceptance test certificate in accordance with EN 10204:2004 type 3.1 or an equivalent document.

ANNEX A: Checklist for writers and editors of documents

The checklist given in Table A. 1 is a tool to help writers and editors of documents.

Table A. 1 – Checklist for writers and editors of documents

Element	**Verification**	**Checked** ☒	**Comment**
Structure	Check table of contents: - Is the top-level structure logical? - Is the subdivision consistent?	☐	
	Hanging paragraphs: - Check for and remove any hanging paragraphs. See CEN IR Part 3:2022, 22.3.3.	☐	
Use of plain language	Is the text clear and concise?	☐	
	Are the sentences short? (check punctuation).	☐	
Language	Oxford English (British spelling in combination with the suffix -ize (rather than -ise)) shall be used throughout the document. In case of uncertainty, refer to the Oxford English Dictionary for guidance (online version: www.oxfordlearnersdictionaries.com).	☐	
	Maintain consistent spelling throughout the document.	☐	
Title	To be organized going from the more general to the more particular: composed of separate elements (an introductory element („Aerospace series“- mandatory), a main element (mandatory), a complementary element) each as short as possible. No more than three elements shall be used. Each element starting with a capital letter. **Aerospace series — Electrical contacts used in elements of connection — Part 008: Contacts, electrical, male, type A, crimp, class S — Product standard**	☐	
	Title in French: Before any double punctuation (e.g. colon) a non-breaking space is required, see below extract from standard title. E.g. Partie 004 : **Série aérospatiale** **Câbles électriques, d'usage général, avec conducteurs en aluminium ou en aluminium chemisé cuivre — Partie 004 : Famille ADA, mono et multiconducteurs — Norme de produit**	☐	
	The title does not unintentionally limit the scope of the document.	☐	
	Title in three languages correct and existing.	☐	
	Is it as clear and concise as possible?	☐	

Element	**Verification**	**Checked** ☒	**Comment**
	If there are several parts, are the main titles aligned?	☐	
	Use singular: e.g. „Technical Specification“.	☐	
Foreword	If the document is a revision, insert a revision statement including any amendments and technical corrigenda and a list of main technical changes with respect to previous edition.	☐	
	Mention any other organizations involved in the drafting.	☐	
Introduction	Shall be purely informative, shall describe the content or give information on why the document is necessary.	☐	
	Where patent rights have been identified during the preparation of the document, they shall be included in the Introduction.	☐	
Scope	Scope shall describe what the document does, state where it is applicable and only contain statements of fact.	☐	
	Forms of expression such as the following shall be used: "This document – specifies { the dimensions of ..." / "a method of ..." / "the characteristics of ..." – establishes { "a system for ..." / "general principles for ..." – gives guidance on ..." – defines terms ..."	☐	
	Statements of applicability of the document shall be introduced by wording such as: — "This document is applicable to ..." — "This document does not apply to..."	☐	
Normative references	The Normative reference clause (Clause 2) is a mandatory element, even if it contains no normative references. In case of no normative references, verify the presence of a statement: “There are no normative references in this document”.	☐	
	Are all of the references listed in the Normative references clause cited in the text in such a way that some or all of their content constitutes requirements of the document?	☐	
	Are the references dated or undated?	☐	
	Are the normative references publicly available?	☐	
	The source shall be mentioned if standard is not EN or ISO.	☐	

Element	Verification	Checked ☒	Comment
	The EN number shall be written as „EN 1234“ using a non-breaking space „strg+shift+space“ between EN and Number.	☐	
	The standard title in Normative references shall be written in *italic.*	☐	
	Referencing can be done to EN if at least ASD-STAN prEN has already been published with the footnote: See Annex D	☐	
Terms and Definitions	All the terms listed shall be used in the document.	☐	
	The Terms and definitions clause (Clause 3) is a mandatory element, even if it contains no terminological entries. In case of no terms and definitions, verify the presence of a statement: “No terms and definitions are listed in this document.”	☐	
	Are the definitions correctly drafted?	☐	
	Terms shall be written in lowercase letters.	☐	Uppercase letters, mathematical symbols, typographical signs, and syntactic signs as well as their character styles shall be used in a term only if they constitute part of the normal written form of the term.
	Terms shall in general be presented in their basic grammatical form (nouns in the singular, verbs in the infinitive).	☐	
	The definition shall be written in such a form that it can replace the term in its context. It shall not start with an article („the“, „a“) nor end with a full stop.	☐	
	A definition shall not take the form of, or contain, a requirement.	☐	
	Do suitable terms exist in the terminology databases? https://www.electropedia.org/ https://www.iso.org/obp	☐	
	Footnotes to any part of a terminological entry are not allowed. To provide supplementary information use „Note # to entry:“. To provide the information that illustrates the concept use „EXAMPLE“.	☐	

Element	Verification	Checked ☒	Comment
	Notes to a terminological entry shall be sequentially numbered starting with "1" within each terminological entry.	☐	
	"EXAMPLE" shall be numbered starting with "1" within each terminological entry. A single example in a terminological entry shall not be numbered.	☐	
Figures	Does each figure have a concise title?	☐	
	Is each figure numbered correctly? By default, figures are numbered with Arabic numerals, beginning with 1, and the numbering shall be continuous and independent of the numbering of the clauses and of any tables. In annexes, the figure numbering restarts, and the number is preceded by the annex letter (e.g. Figure A.1, Figure A.2, …).	☐	
	Is there a key if necessary?	☐	
	Are all figures cross-referenced in the text?	☐	
	Figures shall be of a good quality and be language neutral in order to facilitate translation, using key references or figure footnotes instead of textual descriptions.	☐	
Tables	Does each table have a concise title?	☐	
	Is each table numbered correctly? Table numbering: Tables shall be designated “Table” and numbered. By default, tables are numbered with Arabic numerals, beginning with 1, and the numbering shall be continuous and independent of the numbering of the clauses and of any figures. A single table shall be designated "Table 1".	☐	
	Are all tables cross-referenced in the text?	☐	
	When a table is continued over several pages, the column headings should be repeated on all pages after the first.	☐	use the Word option “Repeat header row”
	Further table subdivision [e.g. Table 1a)] is not permitted. A table within a table is not permitted.	☐	
	A Figure within in a Table is not permitted.	☐	
	Column Headlines shall be bold.	☐	
	Borderlines: Outer borderlines shall be 1,5 pt and inner lines shall be 0,75 pt.	☐	

<table>
<tr><th>Element</th><th>Verification</th><th>Checked ☒</th><th>Comment</th></tr>
<tr><td rowspan="5"></td><td>Values (Columns) shall have units.</td><td>☐</td><td></td></tr>
<tr><td>Repeat values if they apply to multiple entries. No empty cells, shapes (e.g. arrows) are permmitted in the table. Use em dash (—) if no value applies.</td><td>☐</td><td></td></tr>
<tr><td>For specific forms and templates which are formatted as tables, empty cells are allowed for editorial purposes (see clause 6.5).</td><td>☐</td><td></td></tr>
<tr><td>Ensure consistent row structure in tables to maintain horizontal readability in XML. Do not use tab characters or enters for alignment but instead use invisible cell division borders.
E.g.
<table>
<tr><th>Column 1</th><th>Column 2
Unit 2</th><th>Column 3
Unit 3</th></tr>
<tr><td>Data
Subdata 1
-</td><td>Data
-
Subdata 2</td><td>Data
WYZ
ZYX</td></tr>
</table>
When text lines have different heights due to tabs and enters, columns may not have equal heights. For example, if "Subdata 2" has a raised footnote or spans two lines while "ZYX" does not, "ZYX" won't be at the same height as "Subdata 2" in the column.</td><td>☐</td><td></td></tr>
<tr><td>Avoid nested tables (see clause 6.6.)</td><td>☐</td><td></td></tr>
<tr><td rowspan="2">Annexes</td><td>Is there a reference to each annex in the main part of the text?</td><td>☐</td><td></td></tr>
<tr><td>Is their status (normative or informative) correct? Is this made clear in the main part of the text?</td><td>☐</td><td></td></tr>
<tr><td rowspan="4">Bibliography</td><td>Is it formatted consistently?</td><td>☐</td><td></td></tr>
<tr><td>Are all the entries correct and complete?</td><td>☐</td><td></td></tr>
<tr><td>Are any of them normative references that should be listed in Clause 2?</td><td>☐</td><td></td></tr>
<tr><td>Are any of the listed documents duplicated in Clause 2 “Normative references”?</td><td>☐</td><td></td></tr>
<tr><td rowspan="4">Drafting of provisions</td><td>Use "shall" for requirements instead of "must". Use “should" for recommendations, use “may” for permissions and “can” to express possibilities see Sub-clause 6.1</td><td>☐</td><td></td></tr>
<tr><td>Make sure that "shall", "should" or "may" are not used in the Foreword, Scope, notes or examples.</td><td>☐</td><td></td></tr>
<tr><td>Make sure that "shall", is not used in the Introduction.</td><td>☐</td><td></td></tr>
<tr><td>Are "may" and "can" used correctly?
• “May” to be used to express permissions.
• “Can” to be used to express possibilities.</td><td>☐</td><td></td></tr>
</table>

Element	**Verification**	**Checked** ☒	**Comment**
	Is "must" used anywhere in the document? Is "must" used correctly to mean external constraints?	☐	
Potential legal problems	Copyrights. No texts shall be copied from external organizations (and/or other SDOs) without prior written consent.	☐	
	Trademarks: Proprietary trade names or trademarks for a particular product should as far as possible be avoided, even if they are in common use. If, exceptionally, trade names or trademarks cannot be avoided, their nature shall be indicated, for example by the symbol ® for a registered trademark and by the symbol TM for a trademark. The trade name or trademark of the product may be given in the text of the document but shall be associated with a footnote as shown below. *„… [trade name or trademark of product] … is the [trade name or trademark] of a product supplied by … [supplier] …. This information is given for the convenience of users of this document and does not constitute an endorsement by … [ISO or IEC] … of the product named. Equivalent products may be used if they can be shown to lead to the same results".*	☐	
	No requirements specifying compliance with national/legal regulations are permitted. If there is any technical requirement it shall be described, but it cannot be a direct reference to the legislation. If necessary, a note with a factual reference to the legislation may be included, but there should be a separation between one and the other (e.g. in line with REACH)	☐	
Conformity assessment	Are there potential conformity assessment issues?	☐	
Cross-references	Are all cross-references correct?	☐	
Common problems	Are symbols for variable quantities correct, consistent and properly formatted in the text and in mathematical formulae?	☐	
Supersession information	If the document is a revision, the document shall mention that it is replacing an existing deliverable.	☐	
Designation	The designation shall not exceed 15 characters.	☐	IT System limitation
	Designations shall be written according to Clause 8.	☐	

Element	**Verification**	**Checked ☒**	**Comment**
Marking	If needed „Marking“ shall be in accordance with EN 2424.	☐	
	If needed the marking position shall be shown in a figure or as per manufacturers option.	☐	
Quality Management System	**Option 1:** Product Standard: "The manufacturer’s operations shall be an approved production organization for aerospace products and shall demonstrate that it has implemented and is able to maintain a quality management system according to aerospace accepted and established quality management system)." Specification: "The qualification procedure for aerospace standard products according to an aerospace accepted and established qualification procedure shall be used and documented according to the specified tests if not otherwise agreed between customer and supplier." **Option 2:** Product Standard: "The manufacturer’s operations shall be an approved production organization for aerospace products and shall demonstrate that it has implemented and is able to maintain a quality management system (e.g. according to EN 9100 or an equivalent aerospace accepted and established quality management system)." Specification: "The qualification procedure for aerospace standard products (e.g. according to EN 9133 or an equivalent aerospace accepted and established qualification procedure) shall be used and documented according to the specified tests if not otherwise agreed between customer and supplier."	☐	
Specific writing	The decimal sign shall be a comma on the line in all language versions (preceded by a zero if number is less than 1). [see CEN-CENELEC Internal regulations part 3, 9.1]	☐	
	Indices: Cambria, non-Italic.	☐	
	Units: Cambria.	☐	
	Symbols/Variables in: Cambria, Italic.	☐	
	Product standard: General tolerance shall be included (as far as applicable) E.g. ISO 1132-1.	☐	

Element	**Verification**	**Checked** ☒	**Comment**
General Check/Other issues	Temperature range should be written without a Plus expression in the positive temperature range, only minus is shown.	☐	e.g.: "temperature range: −55 °C to 150 °C"
	File name: Ensure correct Document type, Standard number, Status (NWP, CTD, CD, FVrev.), Date.	☐	E.g.: prEN_1234_P4_CTD_2024-02-23.docx FprEN_1234_P4_FVrev_2024-02-23.docx
	Have previous comments (NWP, NDB/ENQ, FV) been disposed and agreed comments implemented?	☐	

ANNEX B: Coversheet for Withdrawal

EXAMPLE 1:

ASD-STAN STANDARD
NORME ASD-STAN
ASD-STAN NORM

prEN xxxx
Edition P x
xxx 2016

PUBLISHED BY THE AEROSPACE AND DEFENCE INDUSTRIES ASSOCIATION OF EUROPE - STANDARDIZATION
Rue Montoyer 10 - 1000 Brussels - Tel. + 32 2 775 8126 - Fax. + 32 2 775 8131 - www.asd-stan.org

ICS:

Descriptors:

ENGLISH VERSION

Aerospace series

Luft- und Raumfahrt **Série aérospatiale**

This "Aerospace Series" Prestandard has been drawn up under the responsibility of ASD-STAN (The AeroSpace and Defence Industries Association of Europe - Standardization). It is published for the needs of the European Aerospace Industry. It has been technically approved by the experts of the concerned [illegible] following member comments.

Subsequent to the publication of this Prestandard, the technical content shall not be modified to an extent that interchangeability is affected, physically or functionally, nor [illegible] identification of the standard.

After examination and review by users [illegible] agreement [illegible] ASD-STAN, it will be submitted as a draft European Standard (prEN) to CEN (European Committee for Standardization) for formal vote and transformation to full European Standard (EN).

The CEN national members have then to implement the EN at national level by giving the EN the status of a national standard and by withdrawing all their national standards conflicting with the EN.

ASD-STAN Technical Code approves that: "This document is published by ASD-STAN for the needs of the European Aerospace Industry. The use of this standard is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

ASD-STAN reviews each standard and technical report at least every five years at which time it may be revised, reaffirmed, stabilized or cancelled. ASD-STAN invites you to send your written comments or any suggestions that may arise.

Order details: **E-mail:** sales@asd-stan.org
Web address: http://www.asd-stan.org/

WITHDRAWN STANDARD
REPLACED BY EN XXXX

Edition approved for publication	Comments should be sent within six months after the date of publication to ASD-STAN	**Domain**
1st xxx 2016		

EXAMPLE 2:

ASD-STAN STANDARD
NORME ASD-STAN
ASD-STAN NORM

prEN xxxx
Edition P x
xxx 2016

ASD-STAN
PUBLISHED BY THE AEROSPACE AND DEFENCE INDUSTRIES ASSOCIATION OF EUROPE - STANDARDIZATION
Rue Montoyer 10 - 1000 Brussels - Tel. + 32 2 775 8126 - Fax. + 32 2 775 8131 - www.asd-stan.org

ICS:

Descriptors:

ENGLISH VERSION

Aerospace series

Luft- und Raumfahrt **Série aérospatiale**

This "Aerospace Series" Prestandard has been drawn up under the responsibility of ASD-STAN (The AeroSpace and Defence Industries Association of Europe - Standardization). It is published for the needs of the European Aerospace Industry. It has been technically approved by the experts of the concerned [illegible] following member comments.

Subsequent to the publication of this Prestandard, the technical content shall not be changed to an extent that interchangeability is affected, physically or functionally, without identification of the standard.

After examination and review by users and approval of ASD-STAN, it will be submitted as a draft European Standard (prEN) to CEN (European Committee for Standardization) for formal vote and transformation to full European Standard (EN).

The CEN national members shall then to implement the EN at national level by giving the EN the status of a national standard and by withdrawing any national standards conflicting with the EN.

ASD-STAN Technical Committee approves that: "This document is published by ASD-STAN for the needs of the European Aerospace Industry. The use of this standard is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

ASD-STAN reviews each standard and technical report at least every five years at which time it may be revised, reaffirmed, stabilized or cancelled. ASD-STAN invites you to send your written comments or any suggestions that may arise.

Order details: **E-mail:** sales@asd-stan.org
Web address: http://www.asd-stan.org/

WITHDRAWN STANDARD

Edition approved for publication	Comments should be sent within six months after the date of publication to ASD-STAN	**Domain**
1st xxx 2016		

ANNEX C: Drawings

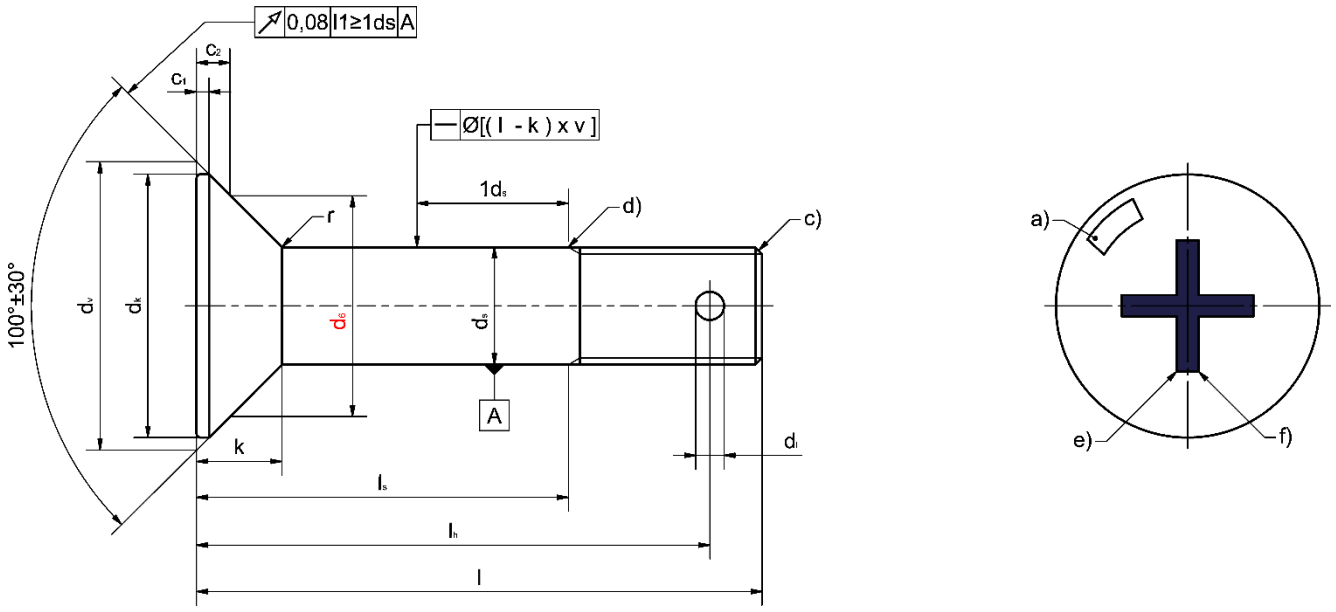


Figure C.1 — Example of a countersunk head bolt drawing

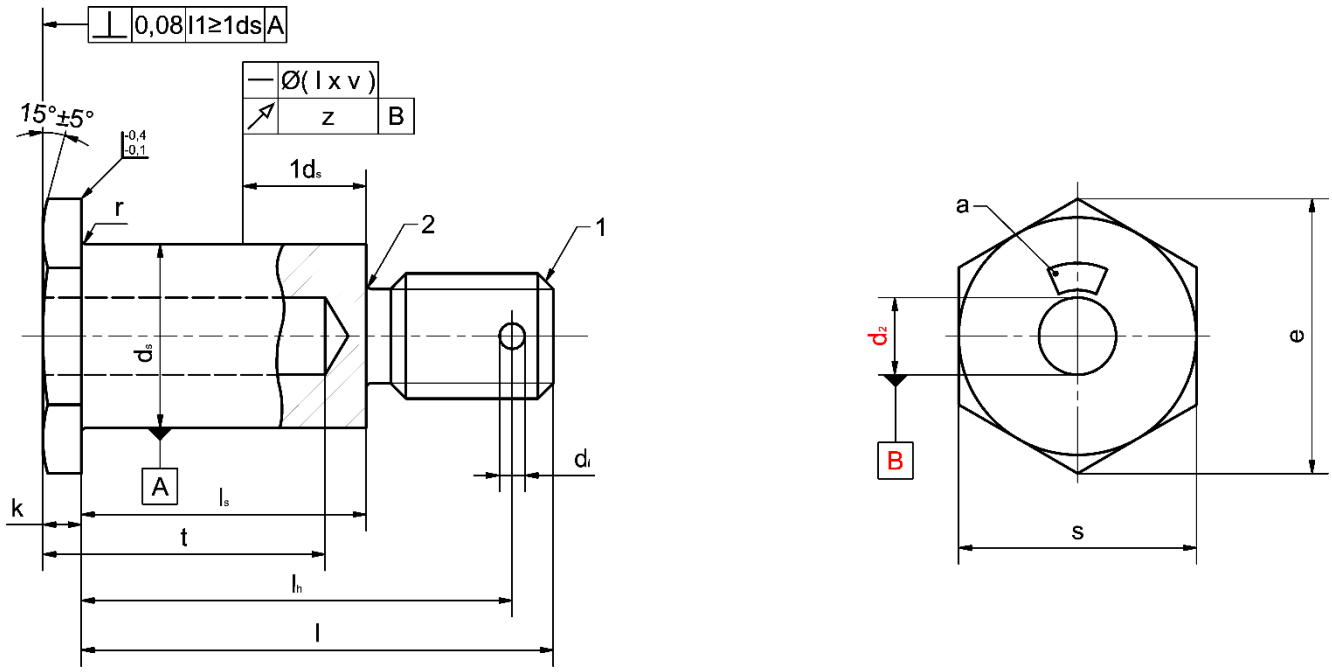


Figure C.2 — Example of a hexagon bolt with shoulder drawing

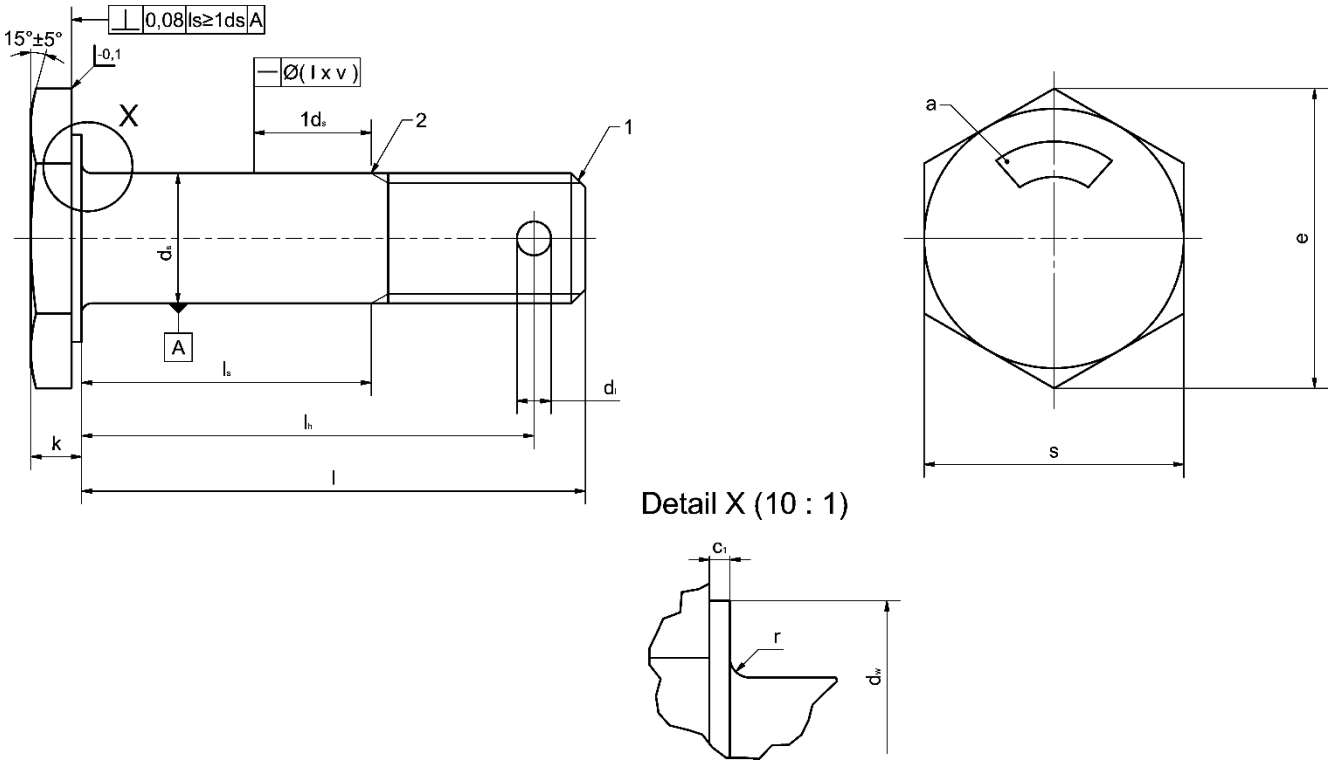


Figure C.3 — Example of a hexagon bolt drawing

ANNEX D: Guidelines for Referencing Documents from different Institutions

Document type	This is the text which shall be used as a Footnote in Clause 2 or Bibliography
ASD-STAN prEN[4]	Published as ASD-STAN prEN at the date of publication of this document, available at: https://www.asd-stan.org/
ASD-STAN TR[5]	Published as ASD-STAN TR, available at: https://www.asd-stan.org
AIA	Published by Aerospace Industries Association (AIA), available at: https://www.aia-aerospace.org/
AIAA	Published by American Institute of Aeronautics and Astronautics (AIAA), available at: https://www.aiaa.org/
ASME	Published by American Society of Mechanical Engineers (ASME), available at: https://www.asme.org/
ASTM	Published by American Society for Testing and Materials (ASTM International), available at: https://www.astm.org/
ASQ	Published by American Society for Quality (ASQ), available at: https://asq.org/
ATA	Published by Air Transport Association of America, Inc. (ATA), available at: https://publications.airlines.org/
EASA	Published by European Union Aviation Safety Agency (EASA), available at: https://www.easa.europa.eu/
ECSS	Published by European Cooperation for Space Standardization (ECSS), available at https://ecss.nl
EUROCAE	Published by European Organization for Civil Aviation Equipment (EUROCAE), available at: https://eurocae.net/
FAA	Published by Federal Aviation Administration (FAA), available at: https://www.faa.gov/
IAQG	Published by International Aerospace Quality Group (IAQG), available at: https://iaqg.org/
IATA	Published by International Air Transport Association (IATA), available at: https://www.iata.org/
ICAO	Published by International Civil Aviation Organization (ICAO), available at: https://icao.int/
MIL	Published by Department of Defense (DoD), available at: https://assist.dla.mil/online/start/
SAE	Published by Society of Automotive Engineers (SAE), available at: https://www.sae.org/

[4] In all ASD-STAN originating documents the reference is always to EN documents, even if they are at ASD-STAN prEN stage. This serves only to make the correct reference in the footnote of Clause 2 or Bibliography.

[5] In all ASD-STAN originating documents the reference is always to TR documents. This serves only to make the correct reference in the footnote of Clause 2 or Bibliography.

ANNEX E: Cover page text for published ASD-STAN prEN standards

The "Aerospace Series" standard, developed by ASD-STAN, serves for the needs of the European Aerospace Industry. It has received technical approval after public consultations with both ASD-STAN and CEN members, along with addressing all received comments.

Once published, alterations to the standard's technical content that may affect interchangeability, whether physically or functionally, require re-identification of the standard.

Following its publication, ASD-STAN prEN standard advances towards becoming a final European Standard (EN), by undergoing CEN Formal Vote and ultimately resulting in its publication as a full European Standard (EN) by CEN. National members of CEN are then responsible for implementing the EN at the national level, withdrawing any conflicting national standards.

ASD-STAN declares that this document is issued for the European Aerospace Industry's needs. The use of this standard is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user.

Systematic Reviews, conducted at least every five years by ASD-STAN, allow for revision, re-affirmation, or withdrawal of the standard. ASD-STAN welcomes any feedback and/or suggestions from stakeholders.

ANNEX F: Cover page text for published ASD-STAN Technical Reports (TR)

The "Aerospace Series" Technical Report developed by ASD-STAN, serves for the needs of the European Aerospace Industry. It has received technical approval after consultations with ASD-STAN members, along with addressing all received comments.

Published ASD-STAN TRs are not included in the cooperation agreement with CEN and, therefore, will not be transformed into CEN TRs. Systematic Reviews, conducted at least every five years by ASD-STAN, allow for revision, re-affirmation, or withdrawal of the Technical Report. ASD-STAN welcomes any feedback and/or suggestions from stakeholders.