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Aerospace series - Quality systems - First article inspection requirements

Táto norma obsahuje anglickú verziu európskej normy.

This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 05/24

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NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 9102**

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ICS 03.120.10; 49.020

Supersedes EN 9102:2015

English Version

**Aerospace series - Quality systems - First article inspection  
requirements**

Série aérospatiale - Systèmes qualité - Exigences pour  
la revue premier article

Luft- und Raumfahrt - Qualitätsmanagementsysteme -  
Anforderungen an die Erstmusterprüfung

This European Standard was approved by CEN on 29 January 2024.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

**EN 9102:2024 (E)**

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## **European foreword**

This document (EN 9102:2024) has been prepared by ASD-STAN.

After enquiries and votes carried out in accordance with the rules of this Association, this document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2024, and conflicting national standards shall be withdrawn at the latest by September 2024.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 9102:2015.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this document: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

**EN 9102:2024 (E)****Introduction**

This document was revised to emphasize and enhance the first article inspection (FAI) planning, evaluation, and re-accomplishment activities; aligning requirements to EN 9100. Additional changes to the document requirements, definitions, and associated notes were incorporated in response to stakeholder needs.

To ensure customer satisfaction, the aviation, space, and defence industry organizations must produce and continually improve safe, reliable products that meet or exceed customer and regulatory requirements. The globalization of the industry and the resulting diversity of regional/national requirements and expectations have complicated this objective. End product organizations face the challenge of assuring the quality and integration of products purchased from suppliers throughout the world and at all levels of the supply chain. Industry suppliers face the challenge of delivering products to multiple customers having varying quality requirements and expectations.

The aviation, space, and defence industry established the International Aerospace Quality Group (IAQG) for the purpose of achieving significant improvements in quality, delivery, safety, and reductions in cost throughout the value stream. This organization includes representation from companies in the Americas, Asia/Pacific, and Europe.

This document standardizes FAI process requirements to the greatest extent possible. While primarily developed for the aviation, space, and defence industry, this document can also be used in other industry sectors where a standardized FAI process is needed.

# 1 Scope

## 1.1 General

This document establishes the requirements for performing and documenting FAI. It is emphasized the requirements specified in this document are complementary (not alternative) to customer and applicable statutory and regulatory requirements.

## 1.2 Purpose

The primary purpose of FAI is to verify and validate product realization processes are capable of producing characteristics that meet engineering and design requirements. A well-planned and executed FAI by a multi-disciplinary team (e.g. members from responsible functions) provides objective evidence the manufacturer's processes can produce compliant product; having effectively understood and incorporated the associated requirements.

**NOTE** A FAI is not a product acceptance document. While interrelated, FAI and product acceptance are separate activities. The focus of FAI is verification of production processes via assessment of product. FAI and supporting documentation do not provide assurance regarding conformance for product acceptance purposes; neither does the lack of a FAI necessarily imply product is nonconforming to engineering and design requirements.

FAI will:

- provide confidence, through objective evidence, the product realization processes are capable of producing conforming product;
- demonstrate the manufacturers and processors of the product have an understanding of the associated requirements;
- provide assurance of product conformance at the start of production and after changes, as outlined in this document.

A FAI is intended to:

- mitigate risks associated with production startup and process changes;
- reduce future escapes;
- help ensure product safety;
- improve quality, delivery, and customer satisfaction;
- reduce costs and production delays associated with product nonconformances;
- identify product realization processes not capable of producing conforming characteristics and initiate and/or validate associated corrective actions.

**EN 9102:2024 (E)****1.3 Application**

This document applies to organizations and their suppliers responsible for product realization processes that produce the design characteristics of the product. The organization shall flow down the requirements of this document to suppliers who produce design characteristics.

This document also applies to suppliers performing special process(es). A certificate of conformance (CoC) provided by processors attests to satisfying the requirements. External suppliers providing special process(es) can satisfy this document's requirements by either:

- documenting the design characteristics and associated results on a first article inspection report (FAIR); or
- documenting the design characteristics and associated results on a detailed CoC.

This document applies to assemblies, sub-assemblies, and detail parts including castings, forgings, and modifications to standard catalogue or commercial-off-the-shelf (COTS) items. Each of these items have a separate FAI.

Unless contractually required, this document does not apply to:

- development and prototype parts that are not considered as part of the first production run;
- procured standard catalogue item, COTS, or deliverable software. When these items are included in an assembly, they shall be documented in the index of part numbers in an assembly FAIR.

**1.4 Convention**

If there is a conflict between the requirements of this document, and customer or applicable statutory/regulatory requirements, the latter takes precedence.

In this document, the following verbal forms are used:

- “shall” indicates a requirement;
- “should” indicates a recommendation;
- “may” indicates a permission;
- “can” indicates a possibility or a capability.

Information marked as “NOTE” is for guidance in understanding or clarifying the associated requirement<sup>1</sup>.

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<sup>1</sup> Notes to entry used in definitions, however, are considered normative and will provide additional information that supplements the terminological data such as statements, instructions, recommendations, or requirements relating to the use of a term.

## 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 9000,<sup>2</sup> *Quality management systems — Fundamentals and vocabulary*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**

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<sup>2</sup> Published by: ISO International Organization for Standardization <http://www.iso.ch/>.

<sup>3</sup> Located on the IAQG website: <https://iaqg.org/tools/dictionary/>.