

## SLOVENSKI STANDARD SIST EN 9133:2005

01-april-2005

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Aerospace series - Quality management systems - Qualification procedure for aerospace standard parts

Luft- und Raumfahrt - Qualitätsmanagementsystem - Qualifikationsverfahren für genormte Teile der Luft- und Raumfahrtards.iteh.ai)

Série aérospatiale - Systemes de management de la qualité - Procédure de qualification pour pieces aérospatiales normalisées 5512/sist-en-9133-2005

Ta slovenski standard je istoveten z: EN 9133:2004

### ICS:

03.120.10	Vodenje in zagotavljanje kakovosti	Quality management and quality assurance
49.020	Letala in vesoljska vozila na splošno	Aircraft and space vehicles in general

SIST EN 9133:2005

en



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#### **SIST EN 9133:2005**

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

## EN 9133

November 2004

ICS 49.020; 03.120.10

Supersedes EN 3042:1991

English version

## Aerospace series - Quality management systems - Qualification procedure for aerospace standard parts

Série aérospatiale - Systèmes de management de la qualité - Procédure de qualification pour pièces aérospatiales normalisées Luft- und Raumfahrt - Qualitätsmanagementsystem -Qualifikationsverfahren für genormte Teile der Luft- und Raumfahrt

This European Standard was approved by CEN on 4 June 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

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

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#### SIST EN 9133:2005

## EN 9133:2004 (E)

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## Foreword

This document (EN 9133:2004) has been prepared by the European Association of Aerospace Manufacturers – Standardization (AECMA-STAN).

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2005, and conflicting national standards shall be withdrawn at the latest by May 2005.

This document supersedes EN 3042:1991.

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

In December 1998, the Aerospace Industry has established the International Aerospace Quality Group (IAQG) with the purpose of achieving significant improvements in quality and reductions in cost throughout the value stream.

This organization, with representation from Aerospace companies in Americas, Asia and Europe and sponsored by SAE, SJAC and AECMA has agreed to take responsibility for the technical contents of this standard.

This standard was reviewed by the Domain Fechnical Coordinator of AECMA-STAN's Process Domain. https://standards.iteh.ai/catalog/standards/sist/c9b42144-60aa-4c4b-af2e-

After enquiries and votes carried out in accordance with the fules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of AECMA, prior to its presentation to CEN.

#### 1 Scope

This document provides a basic uniform method for ensuring that aerospace standard parts (products) conform with the requirements of technical specifications referring to qualified parts and for a manufacturer of such parts to have a qualified management system at least equivalent to EN 9100.

EN 9100 and EN 9103 apply when called out in the aerospace standard part standard.

#### 2 Normative references

The following referenced documents are indispensable for the application 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, Quality management systems — Fundamentals and vocabulary.

EN 9100, Quality management systems — Requirements (based on ISO 9001:2000) — and — Quality systems — Model for quality assurance in design, development, production, installation and servicing (based on ISO 9001:1994).<sup>1)</sup>

EN 9103, Aerospace series — Quality management systems — Variation management of key characteristics.<sup>1)</sup>

## 3 Terms, definitions and abbreviated terms RD PREVIEW

For the purpose of this standard, the terms definitions and abbreviations given in ISO 9000 and the following definitions apply:

#### 3.1

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### mandated body

organization or person, approved by the relevant authority, tasked with assessing whether the manufacturer's products comply with the relevant standards and whether the manufacturer's quality system complies with EN 9100. For complex products/processes, EN 9103 could be used, if so decided by the mandated body. In

this case the key characteristics are identified in the technical specification for the qualified parts

#### 3.2

#### product

standard part, standard part manufacturing process and standard part material (possibility of building a family of products must be laid down in the relevant technical specification)

#### 3.3

#### relevant authority

an authority that runs a qualified products registration system for qualified products, issues product qualification certificates and maintains a list of qualified products and their manufacturers (e.g. AECMA-CERT, PRI-QPL). This list shall indicate the following minimum information: the serial number, issue and granting date of the certificate, and the period of validity

#### 3.4

#### user

an organization purchasing specific aerospace qualified products

<sup>&</sup>lt;sup>1</sup>) Published as AECMA Prestandard at the date of publication of this standard

#### 3.5

#### manufacturer

company or organization manufacturing the products to be qualified and having a quality management system meeting the requirements of EN 9100. A manufacturer is assumed to be located in the place where the product is made

#### 3.6

#### **Qualification Test Program (QTP)**

a program to demonstrate that the tests (may be combinations of tests, analysis or other documentation) meet the requirements of the technical specifications

#### 3.7

#### **Qualification Test Report (QTR)**

report contains the test results according to the QTP

#### 3.8

#### Product Qualification Test Report (PQTR)

validation of the QTR by mandated body

#### 3.9

#### **Product Qualification Certificate (PQC)**

a Serialized Document that certifies that a product has been qualified according to the relevant standards, established by an appropriate organization (relevant Authority)

## 4 Application process STANDARD PREVIEW

A manufacturer seeking to have a product qualified shall apply to the relevant authority or to the mandated body specifying:

- the description of the product to be gualified identifying the applicable specifications and the relevant qualification standard to be used;
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- an overview of the company (organization, share holders and parent companies, products manufactured, manpower, facilities, etc);
- a list of approvals and/or qualifications already granted and, if any, information on results of evaluations already performed.

This shall be accompanied by a certificate showing compliance of the manufacturer with EN 9100 issued by a body acceptable to the relevant Authorities plus any other required certifications/accreditation's from relevant organizations.

The above information shall be forwarded to the mandated body for examination.

#### 5 Qualification procedure

The mandated body shall:

 request the manufacturer to implement a QTP and to specify the place, facilities and manufacturing line proposed to achieve this program

NOTE The QTP can include all the tests required by the technical specifications, or only an appropriate selection of these tests or demonstration by analysis / similarity. To evaluate the qualification program, the mandated body can take into account tests already performed on similar products or results of existing applications for the products used in similar conditions to those defined in the technical specifications.

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- evaluate the QTP (including test procedures)
- establish a schedule for completion of the QTP
- ensure that the QTP is correctly achieved
- ensure that a QTR documenting the results of the QTP is prepared
- ensure that the QTR prepared by the manufacturer shall contain the following:
  - a list of all the tests carried out in accordance with the QTP, including issue date of all relevant reference standards and documents;
  - reference number of the agreed and frozen (issue date, index, ...) manufacturing and inspection file;
  - a full list of quantitative test results and a summary sheet giving the results of tests not as pass/fail, but with values.
- have access during all stages of the production and test program to relevant manufacturing and inspection data for the product
- ensure all tools and test equipment used in the qualification are in calibration and being used correctly
- ensure the product to be evaluated has been manufactured and inspected in the same way as applicable to production parts
- reserve the right to proceed to verification test and have counter test performed when this is deemed item stand have counter test performed when this is deemed item stand have counter test performed when this is deemed item stand have counter test performed when this is deemed here test performed when the test performed when this is deemed here test performed when the test performed when test performe
- ensure that the significant manufacturing operations and parameters are identified, that these operations and parameters are recorded, design and manufacturing drawings are recorded and all signed by representatives of both the mandated body and the manufacturer (signed and sealed). The manufacturer shall certify not to change anything (manufacturer identity, manufacturing/inspection process parameters or manufacturing location) without the express written approval of the relevant authorities.

After examination of the test results, the mandated body shall write a PQTR and forward a copy to the relevant authority and the manufacturer.

This report shall contain at least the following:

- a recommendation of the acceptance or otherwise of the qualification
- any required corrective action and its compliance

#### 6 Certification procedure

The relevant authority shall accept the recommendations from the mandated body and issue a product qualification certificate which shall contain the following minimum information:

- name of the manufacturer of the product
- where the product was manufactured
- the product designation based on the product standard, part number of the product qualified, reference number of technical specification the part was qualified to.
- the QTR number
- a serial number, issue and granting date of the certificate
- a validity period (of e.g. 3 years)