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Additive manufacturing of metals - Qualification principles - Qualification of coordination personnel (ISO/ASTM 52935:2023)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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Additive manufacturing of metals - Qualification principles - Qualification of coordination personnel (ISO/ASTM 52935:2023)

Fabrication additive des métaux - Principes de
qualification - Qualification du personnel de
coordination (ISO/ASTM 52935:2023)

Additive Fertigung von Metallen - Grundsätze der
Qualifizierung - Qualifizierung des AM-
Koordinationspersonals (ISO/ASTM 52935:2023)

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EN ISO/ASTM 52935:2023 (E)

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European foreword

This document (EN ISO/ASTM 52935:2023) has been prepared by Technical Committee ISO/TC 261 "Additive manufacturing" in collaboration with Technical Committee CEN/TC 438 "Additive Manufacturing" the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by May 2024, and conflicting national standards shall be withdrawn at the latest by May 2024.

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Additive manufacturing of metals — Qualification principles — Qualification of coordination personnel

*Fabrication additive des métaux — Principes de qualification —
Qualification du personnel de coordination*



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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.

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This document was prepared by Technical Committee ISO/TC 261, *Additive manufacturing*, in cooperation with ASTM Committee F42, *Additive manufacturing technologies*, on the basis of a partnership agreement between ISO and ASTM International with the aim to create a common set of ISO/ASTM standards on additive manufacturing, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 438, *Additive manufacturing*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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Introduction

For many companies, additive manufacturing (AM) represents an interesting alternative to established manufacturing processes. The trend towards complex, customised or consolidated components, in addition to opportunities for reduced lead times and decentralised production allows an economically feasible use for a growing number of areas. This increasingly applies to many series applications, which add further demands on the efficiency and consistency of the processes. In particular, components used in regulated industries (e.g. automotive, rail, aerospace, process and industrial plants, medical) are subject to high demands in terms of quality and safety.

Where industrial components are produced using additive manufacturing processes, these shall satisfy the equivalent quality and safety requirements demanded of conventional processes. To this end, the production chain and environment are designed such that the process quality and resulting product quality are always consistent and reproducible. To achieve consistency and reproducibility, it is of utmost importance to ensure that the involved workforce is adequately qualified for all stages of production.

This document describes the activities and responsibilities of the personnel with coordination roles in the field of additive manufacturing for metallic parts.

Additive manufacturing of metals — Qualification principles — Qualification of coordination personnel

1 Scope

This document specifies qualification requirements for coordination personnel in industrial manufacturing sites responsible for additive manufacturing of metal parts.

This document is applicable to all metallic processes that are described by ISO 17296-2. In this context, the skills, tasks and responsibilities for different levels of AM coordination personnel are typically adapted according to the applicable regulations, depending on the process.

This document is intended to provide guidance and requirements for the qualification of coordination personnel in general-industrial applications. Additional requirements are typically needed for specific industries or applications (e.g. aerospace, medical) or to meet regulatory requirements.

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/ASTM 52900, *Additive manufacturing — General principles — Fundamentals and vocabulary*

ISO/ASTM 52920, *Additive manufacturing — Qualification principles — Quality requirements for industrial additive manufacturing sites*

ISO/ASTM/TS 52930, *Additive manufacturing — Qualification principles — Installation, operation and performance (IQ/OQ/PQ) of PBF-LB equipment*

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