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STN	**Aditívna výroba kovov Kvalifikačné zásady Časť 1: Všeobecná kvalifikácia operátorov (ISO/ASTM 52926-1: 2023)**	**STN EN ISO/ASTM 52926-1** 18 8522

Additive Manufacturing of metals - Qualification principles - Part 1: General qualification of operators (ISO/ASTM 52926-1:2023)

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. 02/24

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English Version

Additive Manufacturing of metals - Qualification principles - Part 1: General qualification of operators (ISO/ASTM 52926-1:2023)

Fabrication additive de métaux - Principes de qualification - Partie 1: Qualification générale des opérateurs (ISO/ASTM 52926-1:2023)

Additive Fertigung von Metallen - Grundsätze der Qualifizierung - Teil 1: Grundlegende Qualifizierung von Maschinenbedienern (ISO/ASTM 52926-1:2023)

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European foreword

This document (EN ISO/ASTM 52926-1:2023) 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of an identical text or by endorsement, at the latest by May 2024, and conflicting national standards shall be withdrawn at the latest by May 2024.

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INTERNATIONAL STANDARD

ISO/ASTM 52926-1

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Additive manufacturing of metals — Qualification principles —

Part 1: General qualification of operators

Fabrication additive de métaux — Principes de qualification —
Partie 1: Qualification générale des opérateurs

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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.

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 document 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).

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For an explanation of 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 www.iso.org/iso/foreword.html.

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).

A list of all parts of the ISO/ASTM 52926 group standard can be found on the ISO website.

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Introduction

For many companies, additive manufacturing represents an alternative to more conventional manufacturing processes such as casting, forging and milling. The trend towards complex components, decentralised production and customer specific products allows an economically feasible use for more and more areas. This also applies to many series applications, which comprise completely different demands on the efficiency of the processes. In particular, components used in different fields (e.g., automotive industry, mechanical engineering, railway sector, aerospace, process and industrial plants, medical technology, etc.) are subject to high demands in terms of quality and safety. This creates a need for norms and standards that provide a transparent baseline for the production of components for a great variety of application areas.

The manufacturing of products used for applications subjected to specific requirements, relies on that the products' compliance to these requirements can be assured. Additive manufacturing is no exception to this. To this end, the production chain and environment should be designed in such a way that the process quality and the resulting product quality are always consistent and reproducible. To assure this consistency and reproducibility, it is of utmost importance to ensure that the involved workforce is adequately qualified for all stages in the production.

Since this document is designed not to be cross-technology, the different processes are indicated in the relevant four parts of the standard.

This document offers a common approach for the qualification of professionals in AM. If the requirements of ISO/ASTM 52926 series are fulfilled, the scope of an audit can be greatly reduced.

INTERNATIONAL STANDARD **ISO/ASTM 52926-1:2023(E)**

Additive manufacturing of metals — Qualification principles —

Part 1: General qualification of operators

1 Scope

This document specifies the activities and responsibilities of the AM operators in the field of the additive manufacturing (AM) technologies dealing with metallic parts production.

This document is intended to provide guidance for qualification of AM machine operators in general industrial applications. Where industry-specific requirements exist for the qualification of AM operators, such as ISO/ASTM 52942 for aerospace applications, those industry-specific standards are used instead of this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all 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*