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Additive manufacturing - General principles - Requirements for purchased AM parts (ISO/ASTM 52901:2017)

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

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Additive manufacturing - General principles - Requirements for purchased AM parts (ISO/ASTM 52901:2017)

Fabrication additive - Principes généraux - Exigences
pour l'achat de pièces (ISO/ASTM 52901:2017)

Additive Fertigung - Grundlagen - Anforderungen an
die Beschaffung von additiv gefertigten Bauteilen
(ISO/ASTM 52901:2017)

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EN ISO/ASTM 52901:2018 (E)

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European foreword

The text of ISO/ASTM 52901:2017 has been prepared by Technical Committee ISO/TC 261 "Additive manufacturing" of the International Organization for Standardization (ISO) and has been taken over as EN ISO/ASTM 52901:2018 by Technical Committee CEN/TC 438 "Additive Manufacturing" the secretariat of which is held by AFNOR.

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Endorsement notice

The text of ISO/ASTM 52901:2017 has been approved by CEN as EN ISO/ASTM 52901:2018 without any modification.

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Additive manufacturing — General principles — Requirements for purchased AM parts

Fabrication additive — Principes généraux — Exigences pour l'achat de pièces



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ISO/ASTM 52901:2017(E)**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 documents 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 on 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 the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 261, *Additive manufacturing* in cooperation with ASTM 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.

Introduction

This document covers the definition and communication of requirements for purchased parts made by additive manufacturing. It is intended to enable efficient and unambiguous communication between the part providers and the customers of parts made by additive manufacturing to ensure that the resulting part meets the customer's requirements. It is intended that the document is used by the part providers and/or the customers of parts made by additive manufacturing.

This document is a top-level standard in the hierarchy of additive manufacturing standards in that it is intended to apply to parts made by any additive manufacturing process and any material type. The document allows for different requirements based on the classification of the criticality and expected end use of the parts made by additive manufacturing.

Additive manufacturing — General principles — Requirements for purchased AM parts

1 Scope

This document defines and specifies requirements for purchased parts made by additive manufacturing.

It gives guidelines for the elements to be exchanged between the customer and the part provider at the time of the order, including the customer order information, part definition data, feedstock requirements, final part characteristics and properties, inspection requirements and part acceptance methods.

It is applicable for use as a basis to obtain parts made by additive manufacturing that meet minimum acceptance requirements. More stringent part requirements can be specified through the addition of one or more supplementary requirements at the time of the order.

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 17296-3, *Additive manufacturing — General principles — Part 3: Main characteristics and corresponding test methods*

ISO/ASTM 52900, *Additive manufacturing — General principles — Terminology*

ISO/ASTM 52921, *Standard terminology for additive manufacturing — Coordinate systems and test methodologies*

ASTM F 3122, *Standard Guide for Evaluating Mechanical Properties of Metal Materials Made via Additive Manufacturing Processes*

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