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Metallic powders - Determination of flow rate by means of a calibrated funnel (Gustavsson flowmeter) (ISO 13517:2020)

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. 10/20

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**EN ISO 13517**

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Supersedes EN ISO 13517:2013

English Version

**Metallic powders - Determination of flow rate by means of  
a calibrated funnel (Gustavsson flowmeter) (ISO  
13517:2020)**

Poudres métalliques - Détermination du temps  
d'écoulement au moyen d'un entonnoir calibré (cône  
d'écoulement de Gustavsson) (ISO 13517:2020)

Metallpulver - Ermittlung der Durchflussrate mit Hilfe  
eines kalibrierten Trichters (Gustavsson flowmeter)  
(ISO 13517:2020)

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**EN ISO 13517:2020 (E)**

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## **European foreword**

This document (EN ISO 13517:2020) has been prepared by Technical Committee ISO/TC 119 "Powder metallurgy" in collaboration with CCMC.

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of an identical text or by endorsement, at the latest by November 2020, and conflicting national standards shall be withdrawn at the latest by November 2020.

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 ISO 13517:2013.

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## **Endorsement notice**

The text of ISO 13517:2020 has been approved by CEN as EN ISO 13517:2020 without any modification.

# INTERNATIONAL STANDARD

**ISO**  
**13517**

Second edition  
2020-04

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## **Metallic powders — Determination of flow rate by means of a calibrated funnel (Gustavsson flowmeter)**

*Poudres métalliques — Détermination du temps d'écoulement au  
moyen d'un entonnoir calibré (cône d'écoulement de Gustavsson)*



Reference number  
ISO 13517:2020(E)

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# ISO 13517:2020(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](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 119, *Powder metallurgy*, Subcommittee SC 2, *Sampling and testing methods for powders (including powders for hardmetals)*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/SS M11, *Powder metallurgy*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 13517:2013), which has been technically revised.

The main changes compared to the previous edition are as follows:

- tolerance for the funnel angle has been added;
- reference grit has been used instead of Chinese emery grit;
- the mandatory [Clauses 2](#) and [3](#) (Normative references and Terms and definitions) have been added and the subsequent clauses have been renumbered.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).



# Metallic powders — Determination of flow rate by means of a calibrated funnel (Gustavsson flowmeter)

## 1 Scope

This document specifies a method for determining the flow rate of metallic powders, including powders for hardmetals and mixes of metallic powders and organic additives such as lubricants, by means of a calibrated funnel (Gustavsson flowmeter).

The method is applicable only to powders which flow freely through the specified test orifice.

## 2 Normative references

There are no normative references in this document.

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