

Stationary source emissions - Determination of low range mass concentration of dust - Part 1: Manual gravimetric method

## EESTI STANDARDI EESSÕNA

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English Version

## Stationary source emissions - Determination of low range mass concentration of dust - Part 1: Manual gravimetric method

Émissions de sources fixes - Détermination de faibles concentrations en masse de poussières - Partie 1 : Méthode gravimétrique manuelle

Emissionen aus stationären Quellen - Ermittlung der Staubmassenkonzentration bei geringen Staubkonzentrationen - Teil 1: Manuelles gravimetrisches Verfahren

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# Contents

Page

European foreword.....	4
<b>1</b> <b>Scope</b> .....	<b>5</b>
<b>2</b> <b>Normative references</b> .....	<b>5</b>
<b>3</b> <b>Terms and definitions</b> .....	<b>5</b>
<b>4</b> <b>Symbols and abbreviations</b> .....	<b>9</b>
4.1 <b>Symbols</b> .....	9
4.2 <b>Abbreviations</b> .....	10
<b>5</b> <b>Principle</b> .....	<b>10</b>
<b>6</b> <b>Measurement planning and sampling strategy</b> .....	<b>11</b>
6.1 <b>Measurement planning</b> .....	11
6.2 <b>Sampling strategy</b> .....	12
6.2.1 <b>General</b> .....	12
6.2.2 <b>Measurement section and measurement plane</b> .....	12
6.2.3 <b>Minimum number and location of measurement points</b> .....	12
6.2.4 <b>Measurement ports and working platform</b> .....	12
<b>7</b> <b>Equipment and materials</b> .....	<b>12</b>
7.1 <b>Gas velocity, temperature, pressure and composition measurement devices</b> .....	12
7.2 <b>Sampling equipment</b> .....	12
7.2.1 <b>Sampling system</b> .....	12
7.2.2 <b>Filtration device</b> .....	13
7.2.3 <b>Entry nozzle</b> .....	17
7.2.4 <b>Suction tube for out-stack filtration devices</b> .....	18
7.2.5 <b>Suction unit</b> .....	18
7.2.6 <b>Gas metering devices</b> .....	18
7.3 <b>Dust deposit recovery accessories</b> .....	20
7.4 <b>Equipment for conditioning and weighing</b> .....	20
<b>8</b> <b>Weighing procedure</b> .....	<b>20</b>
8.1 <b>General</b> .....	20
8.2 <b>Pre-sampling conditioning</b> .....	20
8.3 <b>Weighing</b> .....	21
8.4 <b>Post-sampling treatment of weighed parts</b> .....	21
8.5 <b>Post-sampling treatment of the rinsing solutions</b> .....	22
8.6 <b>Improvement of the weighing procedure</b> .....	22
<b>9</b> <b>Sampling procedure</b> .....	<b>22</b>
9.1 <b>Preparation</b> .....	22
9.2 <b>Filter handling</b> .....	23
9.3 <b>Pre-measurements</b> .....	23
9.4 <b>Leak test</b> .....	24
9.5 <b>Sampling</b> .....	24
9.6 <b>Recovery of deposits upstream of the filter</b> .....	26
9.6.1 <b>General</b> .....	26
9.6.2 <b>Rinsing procedure</b> .....	26
9.7 <b>Field blank</b> .....	26
<b>10</b> <b>Calculation</b> .....	<b>27</b>
10.1 <b>Sampling volumetric flow rate</b> .....	27

<b>10.2</b>	<b>Dust concentration</b> .....	<b>27</b>
<b>11</b>	<b>Measurement report</b> .....	<b>28</b>
<b>Annex A</b>	<b>(informative) Performance characteristics of the method obtained in the method validation</b> .....	<b>30</b>
<b>A.1</b>	<b>General</b> .....	<b>30</b>
<b>A.2</b>	<b>Experimental data</b> .....	<b>31</b>
<b>A.3</b>	<b>Comments</b> .....	<b>31</b>
<b>Annex B</b>	<b>(informative) Influence of the isokinetic rate on the representativeness of the collected particles</b> .....	<b>33</b>
<b>Annex C</b>	<b>(informative) Proven design of the entry nozzles</b> .....	<b>37</b>
<b>Annex D</b>	<b>(informative) Summary of the requirements</b> .....	<b>40</b>
<b>Annex E</b>	<b>(normative) Sampling volume, flow rate and duration</b> .....	<b>42</b>
<b>E.1</b>	<b>General</b> .....	<b>42</b>
<b>E.2</b>	<b>Weighing uncertainties</b> .....	<b>42</b>
<b>E.3</b>	<b>Sampling volume</b> .....	<b>42</b>
<b>E.4</b>	<b>Sampling flow rate and duration</b> .....	<b>42</b>
<b>Annex F</b>	<b>(informative) Examples of weighing bias</b> .....	<b>43</b>
<b>F.1</b>	<b>General</b> .....	<b>43</b>
<b>F.2</b>	<b>Effect of insufficient temperature equilibrium</b> .....	<b>43</b>
<b>F.3</b>	<b>Effect of temperature variations</b> .....	<b>43</b>
<b>F.4</b>	<b>Effect of barometric pressure variations</b> .....	<b>43</b>
<b>F.5</b>	<b>Conclusions</b> .....	<b>44</b>
<b>Annex G</b>	<b>(informative) Determination of the measurement uncertainty</b> .....	<b>45</b>
<b>G.1</b>	<b>General</b> .....	<b>45</b>
<b>G.2</b>	<b>Principle of the determination of the uncertainty contributions of measurands</b> .....	<b>45</b>
<b>G.2.1</b>	<b>General</b> .....	<b>45</b>
<b>G.2.2</b>	<b>Uncertainty contribution of calibration</b> .....	<b>45</b>
<b>G.2.3</b>	<b>Uncertainty contribution of the drift</b> .....	<b>46</b>
<b>G.2.4</b>	<b>Uncertainty contribution of the display resolution</b> .....	<b>46</b>
<b>G.3</b>	<b>Combination of the uncertainty contributions of the individual measurands</b> .....	<b>47</b>
<b>G.3.1</b>	<b>Procedure</b> .....	<b>47</b>
<b>G.3.2</b>	<b>Specification of the method model equation</b> .....	<b>48</b>
<b>G.3.3</b>	<b>Stepwise calculation of the individual uncertainty contributions</b> .....	<b>49</b>
<b>G.4</b>	<b>Effective number of the degrees of freedom</b> .....	<b>58</b>
<b>Annex H</b>	<b>(informative) Thermal behaviour of dusts</b> .....	<b>60</b>
<b>Annex I</b>	<b>(informative) Significant technical changes</b> .....	<b>61</b>
	<b>Bibliography</b> .....	<b>63</b>

## European foreword

This document (EN 13284-1:2017) has been prepared by Technical Committee CEN/TC 264 “Air quality”, the secretariat of which is held by DIN.

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 2018, and conflicting national standards shall be withdrawn at the latest by May 2018.

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 13284-1:2001.

This document is Part 1 of the EN 13284 series:

- EN 13284-1, *Stationary source emissions — Determination of low range mass concentration of dust — Part 1: Manual gravimetric method*;
- EN 13284-2, *Stationary source emissions — Determination of low range mass concentration of dust — Part 2: Quality assurance of automated measuring systems*.

Annex I provides details of significant technical changes between this European Standard and the previous edition.

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

## 1 Scope

This European Standard specifies the standard reference method (SRM) for the measurement of low dust concentration in ducted gaseous streams in the concentrations below 50 mg/m<sup>3</sup> at standard conditions.

This European Standard is primarily developed and validated for gaseous streams emitted by waste incinerators. More generally, it can be applied to gases emitted from other stationary sources, and to higher concentrations.

If the gases contain unstable, reactive or semi-volatile substances, the measurement depends on the sampling and filter treatment conditions.

This method has been validated in field tests with special emphasis to dust concentrations around 5 mg/m<sup>3</sup>. The results of the field tests are presented in Annex A.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 15259:2007, *Air quality — Measurement of stationary source emissions — Requirements for measurement sections and sites and for the measurement objective, plan and report*

EN ISO 16911-1, *Stationary source emissions — Manual and automatic determination of velocity and volume flow rate in ducts — Part 1: Manual reference method (ISO 16911-1)*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **dust**

particles, of any shape, structure or density, dispersed in the gas phase at the sampling point conditions which may be collected by filtration under specified conditions after representative sampling of the gas to be analysed, and which remain upstream of the filter and on the filter after drying under specified conditions

### 3.2

#### **filtration temperature**

temperature of the sampled gas immediately downstream of the filter

### 3.3

#### **in-stack filtration**

filtration in the duct with the filter in its filter housing placed immediately downstream of the sampling nozzle

### 3.4

#### **out-stack filtration**

filtration outside of the duct with the filter in its heated filter housing placed downstream of the sampling nozzle and the suction tube